

TUG BOAT "EDNA G"  
Agate Bay  
Two Harbors  
Lake County  
Minnesota

HAER NO. MN-26

HAER  
MINN,  
38-TWOHA,  
4-

PHOTOGRAPHS AND  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
National Park Service  
Department of the Interior  
Washington, D.C. 20013-7127

STATE	COUNTY	TOWN OR VICINITY
Minnesota	Lake County	Two Harbors
HISTORIC NAME		HAER NO.
TUGBOAT "EDNA G"		MN-26
SECONDARY OR COMMON NAMES		HAER MINN. 38-TWOHA
COMPLETE ADDRESS (DESCRIBE LOCATION FOR RURAL AREAS)		4-
Agate Bay (at ore docks)		
DATE OF CONSTRUCTION	ENGINEER, BUILDER, OR FABRICATOR	
1896,	Cleveland Ship Building Company	
SIGNIFICANCE (TECHNOLOGICAL AND HISTORICAL, INCLUDE ORIGINAL USE)		
Significant as an historic Great Lakes vessel still in use, continuously serving Two Harbors. Built to transport ore carriers to the Two Harbors docks. It is owned by the Duluth, Missabe & Iron Range Railway Co., shuttling carriers daily.		
STYLE (IF APPROPRIATE)		
MATERIAL OF CONSTRUCTION (INCLUDE STRUCTURAL SYSTEMS)		
steel hulled		
SHAPE AND DIMENSIONS (SKETCHED FLOOR PLANS ON SEPARATE PAGES ARE ACCEPTABLE)		
102' long, 23' beam, maximum draft of 15.5' and gross tonnage of 154 tons.		
EXTERIOR FEATURES OF NOTE		
painted the two-tone yellow and maroon colors of the D, M & IR Railway		
INTERIOR FEATURES OF NOTE (DESCRIBE MECHANICAL SYSTEMS, MACHINERY OR EQUIPMENT)		
Coal-powered, steam driven original engine, hand fired boiler, small galley, crews quarters and captains office.		
MAJOR ALTERATIONS AND ADDITIONS WITH DATES		
new boiler in 1948		
PRESENT CONDITION AND USE		
In good condition and still being operated as a tug boat.		
OTHER INFORMATION AS APPROPRIATE		
Believed to be the last steam-powered, coal buring tugboat assigned an operating lisencc of the Great Lakes. Named for daughter of J.L.Greatsinger, president of D. & I.R. RR.		
SOURCES OF INFORMATION (INCLUDING LISTING ON NATIONAL REGISTER, PROFESSIONAL ENGINEERING SOCIETY LANDMARK DESIGNATIONS, ETC.)		
National Register nomination, prepared by John J. Hackett, Survey Specialist, Minnesota Historical Society, March 1975		
COMPILER, AFFILIATION	DATE	
C. Lavoie, Historian, HABS/HAER	Jan. 1989	

ADDENDUM TO  
Tugboat "Edna G"  
Agate Bay  
Two Harbors  
Lake County  
Minnesota

HAER No. MN-26

HAER  
MINN  
38-TWOHA  
4-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD  
Rocky Mountain Regional Office  
National Park Service  
P.O. Box 25287  
Denver, Colorado 80225-0287

HAER  
MINN  
38-TWOH  
4-

HISTORIC AMERICAN ENGINEERING RECORD  
ADDENDUM TO  
TUGBOAT "EDNA G"

I. Introduction

Location: Agate Bay, near the ore docks, Two Harbors,  
Minnesota.

Quad: Two Harbors

UTM: 15/5207800/600820

Date of Construction: 1896

Present Owner: City of Two Harbors  
522 First Avenue  
Two Harbors, Minnesota 55616

Present Use: Non-operating/museum

Significance: Believed to be the last steam-powered, coal  
burning tugboat assigned an operating license  
on the Great Lakes. Used to transport ore  
carriers to the Two Harbors docks from 1896  
until her retirement in 1981.

Historian: Jeff McMorro/Carol, Lake County  
Historical Society, December, 1994

## INTRODUCTION

This report on the Great Lakes tugboat *Edna G* was written to document the existence of what is believed to have been the last coal-fired steam powered tugboat in operation on the Great Lakes. The tug was built in 1896 for use on Lake Superior in Agate Bay at Two Harbors, Minnesota for transporting iron ore carriers to and from the Two Harbors docks, for towing barges and smaller steam ships. She was owned by what is now the Duluth, Missabe and Iron Range Railroad (DM & IR) and named for the daughter of the president of the DM & IR.

The *Edna G* is a single-screw riveted steel tugboat and is single-decked, with a two-cylinder 'fore and aft' reciprocating steam engine and a Babcock and Wilcox express (water-tube) boiler. The *Edna G* is 102 feet overall, with a 23 foot beam and draws 13 feet of water. According to her last captain, her cost was believed to have been about \$50,000 when built.

While still a working tug she was placed onto the National Register of Historic Places in 1974. She was taken out of service in 1981 with ownership transferring to the City of Two Harbors in 1984. She currently lies in her home port of Two Harbors, Minnesota near the ore docks where she spent most of her working life.

This report contains relevant histories of the area and shipping, along with a history of tugboats and this specific tug. Also included with this report is information pertaining to how she worked, stories related to her history, statistics, physical properties and repairs.

## HISTORY OF TWO HARBORS

Minnesota territory, including some of North and South Dakota, was formally organized in 1849. Northeastern Minnesota remained Indian country until 1854, when with the signing of a treaty with the Chippewas, Euro-Americans were given access to the area.<sup>1</sup>

Lake County, which also included the present Cook County, came into existence in 1856. Two Harbors was made the county seat in 1886. From around the middle of the 17th century until the 1830s the fur trade consumed most of the French, English and American interest in Northeastern Minnesota. At that time, the fur trade waned and fishing became briefly important. As white men began to settle in the area starting in 1855 "a great number of townsites were platted and land claims filed with high expectations" of minerals, especially copper.<sup>2</sup>

Burlington (in what is now Two Harbors) was platted in 1856 where a steam sawmill was set up. The year before, three men were the first to arrive at Agate Bay (the original name of Two Harbors), but they soon left.<sup>3</sup> Most of the settlements or claims were abandoned in the financial panic of 1857. In 1865, gold, later identified as fool's gold, was thought to be discovered near Lake Vermilion. That and the Homestead Act provided incentive for movement into the area.

Between the 1840's and the 1880's was the greatest era of immigration to Minnesota. People came from many countries, but more Scandinavians moved to Minnesota than to any other state. "Miners and lumbermen were the first to come to the north woods. In the 1840s the Cornish, Welsh, and the Swedes came to Michigan for copper mining. They later moved to the Vermilion Range, first

---

<sup>1</sup>Jon L. Anderson, ed., Two Harbors 100 Years: A Pictorial History of Two Harbors, Minnesota and Surrounding Communities (Two Harbors: Two Harbors Centennial Commission, 1983), 8.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid., 12

mined in 1884, and then to the Mesabi Range, which began in 1892".<sup>4</sup> Many Scandinavians also came to farm and, a bit later, to fish, and still later, to log.<sup>5</sup>

One of the first men to arrive in Agate Bay in 1855, Thomas Sexton, returned to the area and built the town's first dwelling in Agate Bay. He bought the land in 1863 from an individual who had gotten it from a widow whose husband had been issued a Military Land Warrant of 160 acres for service with the Massachusetts Military in the War of 1812. Sexton sold all but four acres of it to Charlemagne Tower and Samuel Monson of the Minnesota Iron Company. These men also bought other Agate Bay property at the same time. In 1887 Sexton sold his last four acres to the Minnesota Iron Company for \$20,000, making that perhaps the most profitable real estate transaction ever made in Agate Bay, as he'd bought the land for less than a dollar an acre.<sup>6</sup> The land that Thomas Sexton sold was used for the railroad facilities in Agate Bay.

The area was heavily wooded and early settlers lived in primitive conditions. Although there were a few roads, travel by boat was the primary transportation. By the 1880's more Scandinavians were settling along Lake Superior, where most of them were self-employed in commercial fishing. Logging was begun as soon as settlement was started.

The Minnesota Iron Company needed a railroad to transport the ore from the mines to a shipping port on Lake Superior. Although a number of sites were considered for the railroad terminus and shipping port, Agate Bay was finally decided on because not only was it closer to the iron ore than most sites, but the bay had a clay bottom,<sup>7</sup> which would be much easier to

---

<sup>4</sup>Ibid., 12

<sup>5</sup>Ibid., 13

<sup>6</sup>Ibid., 16

<sup>7</sup>Ibid., 40

build docks in than the usual rocky bottom of the lake. The Minnesota Iron Company operated its railroad under the name of the Duluth & Iron Range Railroad (D&IR).

"When construction on the iron ore railroad in Agate Bay began in 1883, a sawmill, located at the end of Two Harbors' present day main street, provided lumber for the ore docks", along with other lumber needs of the growing community.<sup>8</sup> Both lumber and logs were shipped from Agate Bay as well as from other sites along the North Shore.

"The importance of the iron ore railroad to Two Harbors development cannot be overemphasized. Two Harbors from its beginning was not just dependent on the railroad, but Two Harbors owed its existence to the railroad. The railroad, in turn, existed because of the iron ore".<sup>9</sup>

In the early 1880s "... Main Street was a stretch of hastily built shanties, interspersed with tents spreading from the area of the old coal dock to Lighthouse Point. This was the notorious Whiskey Row, containing some twenty-two saloons, dance halls, gambling dens and, as one source delicately put it, 'all that went with it'. Whiskey Row grew with the railroad, as the first survey of lands began around 1882, through the construction and completion of the line in 1883 and 1884".<sup>10</sup> The contractor for the railroad hired 600 men in the summer of 1883 and, as the deadline for completion neared, he had a total of 1,400 men working in shifts around the clock. "This influx of men through Agate Bay contributed to the prosperity and growth of the saloons and various other establishments of Whiskey Row".<sup>11</sup> This area burned down totally in 1885.

At the same time as the railroad was being built, docks were

---

<sup>8</sup>Ibid.,17

<sup>9</sup>Ibid.,40

<sup>10</sup>Ibid.,17

<sup>11</sup>Ibid.,41

under construction in Agate Bay. A wooden ore dock, No. 1, gave way about halfway through and a second dock was built. This No. 2 dock was 44 feet high, about 550 feet long and had a storage capacity of around three thousand tons.<sup>12</sup>

In August of 1884 the first cargo of iron ore was taken from the Agate Bay dock in Minnesota to Cleveland, Ohio. "For the railroad and the terminus of Agate Bay this was only the beginning of a prosperous future with iron ore mining in Minnesota".<sup>13</sup> Soon after that first load of iron ore was taken by railroad to Agate Bay, passenger service started in this area as well, and grew along with the growth of the railroad lines.

"By the early 1880s, Agate Bay was beginning to develop into a community of responsible citizens. The railroad executive, Charlemagne Tower, seems to have been the moving force in establishing governmental organization in the townsite. Mr. Tower also [tried] to see to it that lots were purchased only by potential permanent settlers".<sup>14</sup>

It was during this earliest settlement that Agate Bay shows its most drastic growth. "In 1883, along with the construction of the iron ore railroad, the Duluth and Iron Range Railroad Company (D&IR) built both a hospital and the Lakeview Hotel which was to be owned and operated by the railroad. In 1885, with a population of 550, the village of Two Harbors was platted in Agate Bay. On March 9, 1888, Two Harbors was incorporated as a village and [a month later], Two Harbors elected village officers".<sup>15</sup>

In 1885, dock No. 1 was put into use. Four more wooden docks were constructed and in 1907-08 Dock No. 6 was built of steel and concrete. This was the first of its kind to be built in the country. In 1916, Dock No. 2 was replaced with one of steel and

---

<sup>12</sup>Ibid., 41

<sup>13</sup>Ibid., 44

<sup>14</sup>Ibid., 18

<sup>15</sup>Ibid., 18-19

concrete.<sup>16</sup>

With the drastic growth of the railroad and shipping operations, by 1890 Two Harbors had a population of 1,224 and had most of the necessary conveniences.<sup>17</sup> By the early 1900's Two Harbors had a population of 3,278; stagecoaches had replaced a native Ojibwa, John Beargrease, in transporting mail in winter along the North Shore route, and telephone lines were joining telegraph lines. There was by then also a popular YMCA and three schools. And there were at least nine saloons, a pool hall and a liquor store. In 1907 Two Harbors was granted a city charter.<sup>18</sup>

In the teens, dock repair and rebuilding included the replacement of the all of the original wood ore docks with a steel and concrete structure.<sup>19</sup>

"In about twenty-five years, (from 1885-1910) Two Harbors had grown from a 'shanty town' on the waterfront to a city with schools, hospitals, churches, organizations, businesses, a police force, a fire department with two fire halls, a railroad, and one of the largest shipping ports on Lake Superior".<sup>20</sup>

The town continued to grow, adding more businesses as well as roads and automobiles. Some of the local people went off to the first world war and nine of them didn't come back.<sup>21</sup> During that war a company of ninety-six men were brought in to guard the ore docks at Two Harbors. At least thirty more men were added, and fishermen needed passes to get past the guards to their boats.<sup>22</sup>

---

<sup>16</sup>Ibid., 47

<sup>17</sup>Ibid., 16-17

<sup>18</sup>Ibid., 21

<sup>19</sup>Ibid., 53

<sup>20</sup>Ibid., 23

<sup>21</sup>Ibid., 24

<sup>22</sup>Ibid., 22

By 1920, there were around twenty small companies in the Two Harbors area, but logging operations began to phase out. There was an automobile dealership. Rail passenger use began to decline with the advent of buses and cars, and the highways to accommodate them.<sup>23</sup> In 1925, "the sleigh and the wagon used to haul officials during the construction of the iron ore railroad were discovered, and plans were made to preserve them. Two years earlier, the original wood-burning 'first engine of the D&IR' had been rescued from a junk yard, restored and presented as a memorial under the auspices of the railroad and its president, Mr. House".<sup>24</sup>

The depression of the 1930s was just as difficult for Two Harborites as for others across the country. During this time, some of the lowest ore tonnage since the first years of the railroad were shipped. From over six million tons shipped in 1930, the total dropped to 410,714 in 1932. Two years later, it had increased a bit to some three million tons.<sup>25</sup> At least sixteen CCC camps were built in the area to help unemployed people support themselves and their families. "And [in 1933] after two years of idleness due to limited ore shipping, the Edna G was back in commission".<sup>26</sup>

In 1934, the fiftieth anniversary of iron ore in Two Harbors was celebrated with a new memorial at Owens Park. In those fifty years, over 400 miles of track had been added and an investment of around 3 million dollars had grown to one of over thirty million dollars. Also in that time, 36,326 boats were loaded, representing over six million car loads of ore. "Ore car capacity by then had reached eighty tons, an increase of sixty tons from those early trains, and train loads had increased from the

---

<sup>23</sup>Ibid.

<sup>24</sup>Ibid., 26

<sup>25</sup>Ibid., 55

<sup>26</sup>Ibid., 27

original ten cars to 150 cars".<sup>27</sup>

During the second world war, both the newly organized DM&IR railroad and the town became busy again. From 1941 to '45 at least fifteen million tons of ore a year were shipped from the Two Harbors docks.<sup>28</sup> A number of women were hired to replace men who had been called to military service. They worked well and without any special consideration.<sup>29</sup>

In 1950 the Paul H. VanHoven Park, named after a president of the DM&IR, near the Edna G Tug, was opened.<sup>30</sup> Passenger trains were running at a loss and in 1953 the last steam-powered passenger train made its last scheduled run on the Iron Range Division. From then on, a Budd diesel railcar replaced steam engines for passenger service on the Iron Range Division and later on the Missabe Division.<sup>31</sup> By 1961, all passenger service had stopped.

January 1963 brought "Black Friday" and the closing of the Two Harbors docks. "The news (of the closing of the iron ore docks) created a pall over Two Harbors that never quite dissipated. The Iron Range Division of the DM&IR reopened for the 1966 shipping season, but the tonnage shipped from Two Harbors has never returned to that of previous record years".<sup>32</sup>

Even though the high grade ore on the range was being depleted and taconite, a concentration of low-grade iron ore, became viable, and, indeed was being shipped out of the Two Harbors docks, the economy and other factors have contributed to the decline of shipping from Two Harbors and on its railroad. "And it is difficult to imagine Two Harbors without its railroad.

---

<sup>27</sup>Ibid., 28

<sup>28</sup>Ibid., 55

<sup>29</sup>Ibid., 56

<sup>30</sup>Ibid., 29

<sup>31</sup>Ibid., 57

<sup>32</sup>Ibid., 58

For years, Two Harbors men worked in 'the shops' or on 'the road'. Their sons grew up and they, too, worked in 'the shops' or on 'the road'. And in Two Harbors the railroad was not just a company to work for, but an integrated part of the life of the town".<sup>33</sup>

"From Charlemagne Tower's early involvement with village planning, the railroad has provided more than just employment of Two Harbors people".<sup>34</sup> They (D&IR) built the first hotel, a company boarding house, and a hospital. They paid for much of the YMCA building, as well as a camp, both of which were used extensively by townspeople. Various parks around the city are named for railroad officials, and much of Two Harbors' early history was preserved through efforts of railroad officials. "Over the years Two Harbors received far more than just company paychecks. Wherever there was a need in the city, the railroad was involved".<sup>35</sup>

---

<sup>33</sup>Ibid.

<sup>34</sup>Ibid., 59

<sup>35</sup>Ibid.

## HISTORY OF THE DM&IR RAILROAD

The DM&IR Railway, which owned the *Edna G*, runs from the iron ore deposits of north central Minnesota to Two Harbors and Duluth in northeastern Minnesota. The first trainload of iron ore moved in 1884, just about 20 years after the first Euro-American people in any appreciable numbers moved to north central Minnesota.

Gold was what brought them here in the first place; or at least the rumor of it. The wilderness near Vermilion Lake, about 100 miles north of Duluth, was the destination from 1865 through 1868 for prospectors and adventurers from all parts of the country as well as "nearly all the able-bodied male population"<sup>36</sup> of Duluth. Not much, if any, gold was found, but the attraction did help open up the country, and some stayed to look in earnest for the iron ore of which they'd seen evidence while enroute.

Worthwhile iron ore had been found on the opposite side of Lake Superior on Michigan's Upper Peninsula so there were those who thought it could be in northern Minnesota as well. George R. Stuntz, one person who'd seen evidence of iron ore, began to do some serious exploring and found high-grade ore in the region near Lake Vermilion. He tried to interest monied men in his discovery, but it took a long time before any of them responded.

By 1880, however the country was worried about the possibility of an iron ore shortage; the mines in Michigan seemed unable to supply the anticipated demands.<sup>37</sup> Charlemagne Tower of Philadelphia, one of the monied men contacted by Stuntz, was open to "participate in the Vermilion adventure".<sup>38</sup> Mining there would require a railroad through the wilderness and an ore dock on Lake

---

<sup>36</sup>Frank King, The Missabe Road: The Duluth, Missabe and Iron Range Railway. (San Marino, CA: Golden West Books, 1972), 11

<sup>37</sup>Ibid., 15

<sup>38</sup>Ibid.

Superior. The ore would be useless if it couldn't be moved to the big cities of the east. Tower's men began to find homesteaders to move up on the ore lands in the Vermilion Range area, as that land was in the public domain and subject to federal homesteading laws. Many of these homestead claims were nothing more than fronts for Tower's interests. By 1881, Tower's Minnesota Iron Company owned most of the land that had ore on or under it.

It was decided that the most direct railroad route from the ore to Lake Superior would be to the harbor of Agate Bay, later to be called Two Harbors, and that it would cost about two million dollars to put it in place. For this purpose Tower formed the Duluth and Iron Mountain Railroad Company in 1881.

Another railroad company, the Duluth and Iron Range, had been formed a few years earlier, but the railroad had never been built. Tower wanted the land grant that went with that company and managed to get control of a majority of their stocks and subsequently combined both companies under the name of the D&IR Railroad Company.

Constructing the railroad line was full of incredible hardship including traveling by sled from Duluth, working in four feet of snow and at other times mosquito-infested swamps as well as under the threat of typhoid fever which claimed many victims from the winter through the early summer of 1883-84.

Meanwhile, docks were being built in Agate Bay: a merchandise dock and two ore docks. The first ore dock completed was 40 feet above water, extended 644 feet into the harbor and used a million board feet of lumber for just the first half of the dock.<sup>39</sup>

At the same time, mining was beginning, with a Michigan man in charge. From his home territory he recruited a party of miners, mainly Cornish, to migrate to the Vermilion Range. By the middle of 1884, several hundred miners were at work.

Also that year, the D&IR's first locomotive was moved from

---

<sup>39</sup>Ibid., 21

Duluth to Two Harbors. The *Ella G. Stone*, the company tug, started pulling the Three Spot (the locomotive had been assigned number 3) on a calm lake, but by the time they got most of the way to their destination, a moderate northeaster had increased to such a gale that the crewmen's lives were in danger. The tug captain almost decided to cut lose the scow carrying the locomotive. They finally made it and the little wood-burning engine was put into service hauling rail and other supplies to the advancing railroad.

If the rail line could be completed by August 1st, 1884, the contractor could earn an extra \$50,000. He was driving his men hard near the end of the month when he realized that August 1st was a Friday, which was, by superstition, an unfavorable day to start a journey. The first shipment then had to move on Thursday, July 31st. To save time at the end, a temporary track was laid over a granite outcrop, instead of being drilled and blasted into it, and the first trainload of iron ore in Minnesota was ready to go.

The original plans were for the train to depart from Tower at about 2:00 P.M. in order to arrive at Two Harbors before dark. The ten-car train containing 220 long tons of ore and pulling a caboose with President Tower and a dozen guests finally left at 4:00 P.M. and arrived at Two Harbors about 11:00 P.M.

The opening of the Soudan Iron Mine was the beginning of the exploitation of the richest iron ore deposits in the world. Eleven new locomotives and 350 ore cars were on hand as the railroad started its operations and 62,122 tons of ore passed through Two Harbors before that first shipping season was over.

In those beginning few years the ore was shipped primarily to Pittsburgh and Chicago with smaller amounts to Ohio and other parts of Pennsylvania. In 1887, H.H.Porter, head of the new Illinois Steel Company, and others including Marshall Field, Cyrus McCormick and John D. Rockefeller, succeeded in acquiring the D&IR. Tower was reluctant to sell but was finally convinced, and ended up by almost doubling his money in five years.

Because the D&IR was bought by a steel interest, the railroad was integrated into the steel industry, "insuring both a market for the ore it transported and access to funds for capital improvements".<sup>40</sup> By 1901 the D&IR became a part of the United States Steel Corporation.

By 1888, nine more locomotives and 426 more freight cars were purchased, including 200 ore cars to be built in the company shops at Two Harbors. That first full year under new management saw ore traffic of slightly over one-half million tons.

"Iron ore tonnage first exceeded the million mark in 1892".<sup>41</sup> There were five docks in Two Harbors, more and larger locomotives, and more miles of tracks from more mines.

In 1896, the tug *Edna G* was built to assist the ore freighters at the Two Harbor's docks. Until that time a smaller tug, the *Ella G. Stone* was in use.

"By 1899 annual iron ore shipments reached almost 4,000,000 tons, with about fifty-five percent of the tonnage coming from the Mesabi Range. During that year, orders were placed for 340 all-steel 50-ton capacity ore cars....".<sup>42</sup>

In 1890 and '91, ore was discovered in other parts of what we now know as the Mesabi Iron Range by the Merritt brothers of Duluth. They found high grade, soft, powdery ore near what is now Mountain Iron. They tried to convince the D&IR to construct a branch line to their discovery, but the railroad was not interested. They tried a couple of other railroad companies but, because the process would be long and expensive, those companies weren't interested either.<sup>43</sup> The brothers were able to obtain authority to use an 1882 charter of a railway that had not done any building, and they incorporated as the Duluth, Missabe and

---

<sup>40</sup>Ibid., 33

<sup>41</sup>Ibid., 35

<sup>42</sup>Ibid., 39

<sup>43</sup>Ibid., 45-46

Northern Railway Company (DM&N) in June, 1891.<sup>44</sup>

Mesabi means "giant" in the Chippewa language. The name proved to be appropriate, considering the 2.9 billion tons of iron ore hauled from it between the 1890s and the 1970s. The Merritt brothers, for various reasons, decided to build their main line to Duluth, the first to do so, and got to work acquiring backing. They became affiliated with and borrowed from the American Steel Barge Company which was held principally by John D. Rockefeller, "Captain Alexander McDougal, of Duluth, inventor of the whaleback steam barge, then highly regarded as an ore carrying vessel; A.D. Thomson, a grain exporter, and Cleveland vesselmen, represented by Colgate Hoyt".<sup>45</sup> Backing from other sources was acquired as well and the brothers went to work. Their timing, as well as their decision to move to Duluth, was unfortunate. There was a financial panic in 1893 which precipitated a number of railroads being placed into the hands of receivers. The Merritt brothers had to sell a controlling interest of the stock of their company to John D. Rockefeller by early 1894.<sup>46</sup> Consensus holds that if the brothers had made their commitments a year earlier or a year later than the panic of 1893, they would have been successful.

In 1901, both the D&IR and the DM&N were acquired by the United States Steel Corporation.<sup>47</sup> By that time, "the lines of development were fairly well established that would hold until about the mid-1950's, when the high-grade soft ore began to run out and the taconite development began".<sup>48</sup> "The D&IR's main line extended from Two Harbors 68 miles directly north to Tower Junction, with a 21.5-mile branch going east to Ely and another

---

<sup>44</sup>Ibid., 48

<sup>45</sup>Ibid., 49

<sup>46</sup>Ibid., 55

<sup>47</sup>Ibid., 67

<sup>48</sup>Ibid.

extending west for 30 miles along the Mesabi to the city of Virginia. .... It's port was Two Harbors, at which it then had five wooden ore docks with a total storage capacity of 162,000 tons".<sup>49</sup> It had seventy locomotives and 3,635 cars.<sup>50</sup>

The 1901 situation of the DM&N was even more promising than that of the D&IR. Its seventy-two miles of main line from Duluth to Mountain Iron...had the advantage of the easier terrain of the western part of St. Louis County. The facilities at Duluth consisted of three wooden docks with total storage capacity of 167,040 tons. They had handled 17,904,024 tons of ore. It had thirty-seven locomotives and 3,877 cars.<sup>51</sup>

"From 1901 to 1914 the D&IR and DM&N were free of traffic and financial concerns and were able to concentrate on the job of providing service equal to the demands of a rapidly growing volume of traffic".<sup>52</sup> With the beginning of World War I in Europe it became apparent that the demand for steel would greatly increase. The combined tonnages for 1915, for instance, were double those of 1914, setting a new high with 24,212,801 tons. In 1916, they were up another almost 10,000,000.<sup>53</sup> New, more powerful locomotives and many more cars were added to both companies. "One significant 1917 development, though not related to the war effort, was completion of the 15 mile Wales branch of the D&IR into the timber country north of Two Harbors".<sup>54</sup>

During the '20s there was a slight drop in tonnage hauled, which was only natural, as not as much was needed for non-wartime, so there was little need for expansion. The high tide of the passenger business was reached on both railroads in the early

---

<sup>49</sup>Ibid., 71-72

<sup>50</sup>Ibid., 72

<sup>51</sup>Ibid., 75

<sup>52</sup>Ibid., 77

<sup>53</sup>Ibid., 97

<sup>54</sup>Ibid., 101

1920's. Within a couple of years the passenger business declined on the railroads because of the increasing use by individuals of the Model T and because bus service was becoming cheaper and more convenient.

By 1927 the old wood-burning engines didn't have enough power, so larger, coal burning, Mikado type locomotives were put into use.<sup>55</sup>

The DM&N leased the properties of the D&IR that year. The depression began to show in 1931 with a combined tonnage of half the 1930 figure and by the next year it was not even five percent of the 1929 figure.<sup>56</sup> The tonnage picked up a bit and then in the summer of 1927 the two companies consolidated to form the Duluth, Missabe and Iron Range Railway Company.<sup>5758</sup>

In 1938 the coming war was beginning to be felt, leading to higher levels of traffic. Western European nations turned to the American steel industry for help, causing the 1939 tonnage to more than double that of 1938. More and bigger steam locomotives and more cars were again necessary to handle the traffic.<sup>59</sup>

In the early 1940s more powerful locomotives were necessary so eighteen Mallets were purchased. They were reputed to be among the largest steam locomotives in the world.<sup>60</sup>

"Although the tonnages handled peaked in 1942, during the next three years they remained at a level in excess of 40 million tons a year, a truly awesome amount of iron ore for one railroad to haul out of the limited area served by the Missabe".<sup>61</sup> "The

---

<sup>55</sup>DM&IR, A History in "The Missabe Ranger, July, 1959

<sup>56</sup>King, 117

<sup>57</sup>Ibid., 119

<sup>58</sup>Ibid., 122

<sup>59</sup>Ibid., 122

<sup>60</sup>Missabe Iron Ranger, July, 1959

<sup>61</sup>King, 130

termination of World War II caused no change in the operations of the Missabe, since traffic continued at a high level for a number of years, but after 1945 it was a different world. The change came not only because of the atomic bomb and developments of nuclear power but, as far as the Missabe was concerned, because of the threat of exhaustion of its high-grade soft iron ore" and because other ore was becoming available.<sup>62</sup> The last major amount of track was constructed in 1948.<sup>63</sup>

By the 1950's, passenger service was rapidly fading and by 1960 completion of dieselization replaced the steam engines on the Missabe.<sup>64</sup>

"Traffic dropped to 18.5 million tons in 1961 and was to remain very close to that level for the next three years".<sup>65</sup> The Missabe's port facilities at Two Harbors had to be closed for the 1963 ore season. There was not enough traffic in prospect to warrant keeping both Two Harbors and Duluth open. The Soudan Mine had closed the year before, leaving only one operating mine on the Vermilion Range, and that closed in 1963.<sup>66</sup> Two Harbors' docks were not reopened until the 1966 shipping season.

The natural ore, it was clear in the middle '50s, was becoming exhausted and with ore available in other parts of the world, there was going to be a problem for the domestic producers of iron ore. An affordable and easy means of processing taconite had yet to be developed.

Taconite is a hard rock containing fine particles of iron ore. These fine particles of iron must be removed from the taconite that, when smelted, will produce high grade iron and steel. Work on developing a process to remove the iron content

---

<sup>62</sup>Ibid., 135

<sup>63</sup>Missabe Iron Ranger, July, 1959

<sup>64</sup>King, 159-160

<sup>65</sup>Ibid., 179-180

<sup>66</sup>Ibid., 179

from taconite had begun as early as 1913 at the University of Minnesota's School of Mines, later renamed the Mines Experiment Station.<sup>67</sup> These early experiments were designed to develop a process to remove the iron content from taconite to make the basic material for steel. Over the next forty years this process was further developed and refined. It wasn't until the depletion of natural iron ore seemed inevitable that the mining and development of taconite was deemed to be economically and commercially feasible.

The eventual outcome of these early experiments lead to the first taconite processing plant being built, between 1951 and 1955, at Silver Bay, Minnesota.<sup>68</sup> The crude taconite ore was transported from Babbit mines and processed at the plant in Silver Bay. A similar plant on the eastern end of the Range was built in 1957, and later others were built.<sup>69</sup>

The development of this process has allowed for the continuation of shipping from Agate Bay. Although natural iron ore is occasionally mined, the vast majority of mining and shipping activity is related to taconite. Currently (1990s) annual shipping from Agate Bay is from 10-12 million tons of taconite.

"With the coming of the taconite era, in which the most spectacular aspect is the huge plants for crushing rock and making pellets, the mining of natural ores [has] gradually fade[d] away".<sup>70</sup>

---

<sup>67</sup>E.W. Davis, Pioneering With Taconite (Minnesota Historical Society, 1964), 18-19

<sup>68</sup>Ibid., 169

<sup>69</sup>Ibid., 187

<sup>70</sup>King, 135

## HISTORY OF TUGS AND SHIPPING ON THE GREAT LAKES<sup>71</sup>

### EARLY GREAT LAKES SHIPPING

The first ships on the Great Lakes, immediately after the War of 1812, were sailing schooners. Later, just after the Civil War, steam barges were used for the lumber industry. Those two kinds of ships had a single deck. Bulk freighters, which began to be used in 1869 and '70, carrying grain and iron ore had double decks enclosing cargo space between them and in the hold below. Package freighters had doors on the side for cargo in containers. The freighters were moved by steam powered propellers, and, in addition to the two decks, may have had a cabin for passengers.

Tug boats came into existence rather early, before 1850. They were of simple design and had a pilot house on the main or upper deck. In the 1870s they changed a bit in order to tow log rafts. Lake or "outside" tugs were enclosed on the forward end. "Inside" or harbor tugs had a single deck and no forward cabin. The *Edna G* is a harbor tug.

### EVOLUTION OF TUGS

Scotland and England had the first steam boats for towing sailing vessels before 1800. First were side wheelers until 1840 and then propeller driven tugs. The first tugs were built on the Great Lakes in 1839 and '40.

### GREAT LAKES COMMERCIAL SHIPPING

Before the war of 1812 shipping was directed by the British military. After the war privately owned commercial shipping grew rapidly. In the 1840s brigs began to appear on the Great Lakes. In 1846 and '47 there may have been as many as 150 built for the grain trades. The schooner on the Great Lakes was of a distinct

---

<sup>71</sup>Patrick Labadie, History of Shipping and Tugs on the Great Lakes, Two Harbors, Lake County Historical Society talk, July 28, 1993, Videotape. Entire section unless otherwise noted.

type; it had simple sails for power, a crew of four or five, and was often family run and owned. The backbone of the merchant marine schooners were 110 to 120 feet long, and carried 200 to 300 tons of cargo.

In 1825 canals were dug between the lakes and the east coast, the most important of which was the Erie Canal. Hundreds of thousands of immigrants and fleets of canal boats came from New York, resulting in a major growth of the Great Lakes region. With the development of the canals came an enormous congestion of canal boats and sailing craft and therefore a demand for tug boats to try to keep them all in order.

In the 1850s and '60s the schooners were 150 to 160 feet long and carried over 400 tons of cargo. There were bigger channels and docks, provided for by government money, so the ships could be larger and tugs were more in demand. By the middle 1860s the typical Great Lakes craft was a three-masted schooner, 160 feet long; which were very fast. By 1871, there were 2000 schooners on the Great Lakes clogging the ports with sailing vessels. One hundred or more tugs were required to assist them.

In the 1860s a new ship, the steam barge, became available. Some were converted from sailing ships and many more were built. In the 1870s and '80s there were many of these new steam barges on the Great Lakes.

The lumber trade caught on after the Civil War; first in Lake Michigan and later in Lake Superior. Large fleets were built for that purpose. Then in 1870 bulk freighters were built for iron ore which often towed consort barges with the same size hull as the freighters. Towing one would double the amount they could haul and sometimes they towed two or three barges. This was the time during which the largest schooners were built. Two hundred of them were built which were 200 feet long and carried seven to eight hundred tons of grain or ore. In the 1870s and '80s some of these schooners became barges towed by steamers. The barges especially needed tugs, as they were not self-powered, but the steamers could get to the docks.

The longest wooden freighters, some now over 300 feet, were too long to be water tight. Because they were made of wood they were flexible and would leak. To rectify that problem, the first iron and steel freighters were built in the 1880s. Very soon they superseded wooden ships. By the 1890s they were 400 feet long; by 1899, 500 feet long and by 1912, 600 feet long. Currently the longest carrier is 1000 feet with a 105 foot beam, carrying 74,000 tons of ore.

Barges also were made of steel and were able to be longer. By 1895 and '96, the Minnesota Steam Ship Company carried all the ore out of Two Harbors and had a fleet of 500 foot steel barges. The *Edna G* was built to replace the smaller, older tug *Ella G. Stone* that was in use in Two Harbors.

#### HISTORY OF TUGS ON THE GREAT LAKES

The first tug in the United States was built in England. It was built of iron, seventy feet long, and was sailed across the Atlantic in 40 days. It was fitted out as a screw tug.

Other than that one, the first tugs on the Great Lakes were 45 feet long and had a wood burning boiler and a 25 to 30 horse power engine, with a wheel on the deck and no pilot house. Those first tugs were used in Canada and then in 1840 and '41, on Lake Ontario on the American side. By the 1850s, 400 more were built on the Great Lakes and in the 1860s there were 700.

In 1864 a law was passed that owners must pay fees and duties to the government to register their vessels. Those that measured 65 feet or more required higher payment than shorter ships. The standard tug length rapidly became 64 feet.

In the 1850s and '60s there were a few larger tugs (up to 150 feet long and very different from harbor tugs) built for salvage in the open lakes. Some of these larger tugs were built because there were so many wrecks.

The demand for tugs became great, especially during and after the Civil War. The competition for tows became enormous because there were often two or three companies in bigger ports.

By the 1890s vessel owners were tired of high rates so they got together and bought out most tug operator companies. The Great Lakes Towing Company acquired thirty companies and 170 tugs. They drove all the others out of business. The *Edna G*, being owned by a single company, was never bought by the Great Lake Towing Company.

One of the tugs had a 250 horsepower steam engine, with an exaggerated curve and a high bow. It was found to be very efficient and so the same design was used when new tugs were built.

By 1905 modern steel tugs were replacing the wooden ones. In the next five years about 70 tugs were built at 71 feet long and 400 h.p.. Between 1910 and 1920 about fifty bigger tugs at 81 feet long and 700 hp were produced. In the 1950s the steam engines came out and tugs were dieselized giving them engines of from 1,200 to 2,000 h.p.. These tugs became the back-bone of the Great Lakes tug fleet.

#### TUGS IN TWO HARBORS

Early on were schooners, tow barges and steamers which used the tug *Ella G. Stone* from 1883 to 1896. She was typical at 65 feet and 150 hp at the most. In 1896 the *Edna G* was built. She was considerably larger in order to handle the huge fleet of steel barges. At retirement she was one of two or three steam tugs remaining in the U.S.

## HISTORY OF THE EDNA G

### SHE IS A CORKER

The New Tug Edna G. built for the Duluth & Iron Range railway for use at Two Harbors by the Cleveland Ship Building Co. came up the river last evening. She caused local vesselmen who saw her to open their eyes very wide. The tug is a revelation in tug building. She was built for work at Two Harbors in heavy weather, and for the use of the officials of the road which owns her. Consequently she presents a great combination of strength and elegance. She is a steel boat throughout, the only wood in her composition being her rails and fender strikes and doorways and window frames. She is 100 feet overall, 23 feet beam and draws 13 feet of water.--Detroit Tribune".<sup>72</sup>

The *Edna G* was built in 1896 for the Duluth and Iron Range Railroad Company (D&IR) by the Cleveland Ship Building Company. It was designed specifically for transporting ore carriers to and from the Two Harbors docks<sup>73</sup> and for towing barges and smaller steam ships.<sup>74</sup> It was named for Edna Greatsinger, daughter of Jacob Greatsinger, the President of the D&IR Railroad, and it was christened in Duluth. According to her last captain she was believed to have cost about \$50,000 when built.<sup>75</sup>

The *Edna G* was brought to Two Harbors in 1896 to replace the tug *Ella G. Stone*, which had served at Agate Bay since 1884.<sup>76</sup>

The *Edna G* served the port of Two Harbors from 1896 to November 8, 1917 when the following letter was sent from the U.S. Shipping Board to the her owner:

---

<sup>72</sup>Cleveland Plain Dealer, May 23, 1896.

<sup>73</sup>Edna G Captains File, Lake County Historical Society, Two Harbors, MN.

<sup>74</sup>Two Harbors News Chronicle, 29 July, 1981.

<sup>75</sup>Ibid., 14 April, 1963.

Cleveland, November 8, 1917

The Government requires your tug 'Edna G' for war purposes. Formal notice, officially transferring title, will be sent you from Washington. Please immediately start the boat for Government account and at their risk for Lorain.

U.S. Shipping Board  
F.A. Eustis, Special Agent

The *Edna G* left Two Harbors at 12:30AM November 9, 1917 and reported to the Toledo Shipbuilding Company to be fitted with the proper equipment for being in salt water.<sup>77</sup>

In another letter on April 8th the U.S. Shipping Board requested that the D&IR help decide on a fair price for the tug. "The government in taking your tug 'Edna G' must of course pay you a fair compensation for property taken".<sup>78</sup> The U.S. Shipping Board deposited \$48,000 for the tug in a suspense account.

During the war effort the tug went to Norfolk, Virginia where she towed coal barges and other ships up and down the Atlantic Coast. While the *Edna G* was absent, the D&IR leased the *Mississippi* of the Inman Tug Line.

In a letter dated December 19, 1918 the D&IR questions the need of securing another tug boat. "I took the ground that, now that the war was over, the Government would not have as much use for large tugs as formerly, and it might be possible to get back for us the original tug of the Duluth and Iron Range Railroad, that the Government took in the fall of 1917. On June 18, 1919 we (D&IR) were informed by the Shipping Board that we could have the tug back for the same amount they deposited and on July 9, 1919 a voucher was drawn in payment of same."<sup>79</sup> When the war ended the *Edna G* returned to Two Harbors on August 22, 1919

---

<sup>77</sup>Letter 1, from Federal Auditor to Assistant Director of Operations, Great Lakes Department, U.S. Shipping Board, 4 April, 1919, in Box 1,145.K6 6F, Minnesota Historical Society, St. Paul, MN.

<sup>78</sup>Ibid.

<sup>79</sup>Ibid.

for the rest of her career.

A letter from the D&IR Superintendent, November 3, 1919 to the Federal Auditor states that the tug arrived at Two Harbors from the lower lakes on August 22, 1919 at about 8PM. and that it would be taken over from the U.S. Shipping Board by the U.S. Steel Corporation. When the *Edna G* returned, she was in such disrepair that the Captain, who was her pilot, cried. "The proud Eagle which had graced the pilot house was gone and it was never replaced".<sup>80</sup> The work (repairs) were started on August 27 and the tug was put back into service Monday, October 27.<sup>81</sup> The water condensers, used to convert salt water to fresh were removed and numerous other repairs were needed on the *Edna G*.<sup>82</sup>

Between 1919 and 1920 the tug employees objected to not getting the raises that other tug and D&IR employees were getting and after many months of controversy their wages were raised.

During the early years of operations (1896-1950s) the *Edna G* had a crew of four men on three shifts a day, a captain, engineer, lineman and fireman. Each had specific duties to fulfill during the operation of the tug. The Captain or Master was in charge of the total operation of the tug. He would be in communication with both the dock offices and the ore boats coming into the harbor. The Engineer was responsible for the operation of the engines and would make the appropriate changes to the engine to follow the commands of the Captain. The lineman would be responsible for ensuring that the tow ropes between the tug and the ore boat were secure. The fireman's job was to feed the fire with coal that would then produce the steam necessary to move the tug.

Working on the *Edna G* was a job that many wanted, and kept for years. One captain of the *Edna G*, Jesse Pinney, started in

---

<sup>80</sup>Two Harbors News Chronicle, 6 May, 1981.

<sup>81</sup>Edna G Boxes, Archive at Lake County Historical Society, Two Harbors, MN.

<sup>82</sup>Two Harbors News Chronicle 6 May, 1981.

1938 and retired in 1958.<sup>83</sup> Another captains, Herman Johnson came aboard the tug in 1910 and was still serving on it in 1968.<sup>84</sup> During its entire operating life, there were only five captains of the *Edna G*: Joseph Cox, Henry Fox, Henry Bower, Herman Johnson and Adolph Ojard. Their cases are not that unusual for the employees of the tug. Of the four men that retired with the tug in 1981 three had been with the tug since 1950. Over the years the number of people employed on the *Edna G* fluctuated with the activity of the harbor. By 1970 there were only two crews of four people each working on the tug in 12 hour shifts.

The Two Harbors docks were closed in 1962 because of no iron ore being shipped from the port.<sup>85</sup> During this time one crew was kept on the tug to do maintenance projects. The reopening of the ore docks in 1966 meant that the *Edna G* would again be put to use helping ore boats into and out of the harbor.

In 1971 she averaged 2 carriers a day and it was becoming apparent that there was a decline in the usefulness of the tug, because of the bow thruster.<sup>86</sup> "Bow thrusters are simply large propellers installed in the bow of the large freighters. Their location in a tunnel which runs from one side of the hull to the other, enables a freighter captain to use the thrust from its propeller to move the bow in a sideways direction, greatly aiding the docking process".<sup>87</sup> In 1973, she helped to bring an average of twelve boats a week into port.<sup>88</sup>

At the March 19, 1975 meeting held by the Minnesota State

---

<sup>83</sup>Microfilm M497, Vol.15,roll 6, 0112, DM&IR Co. Payroll Records, Microfilm Edition, Minnesota Historical Society, St. Paul, MN. Also see Microfilm, Vol. 58, roll 26,0066.

<sup>84</sup>Duluth News Tribune, 16 June, 1968.

<sup>85</sup>Two Harbors News Chronicle, 29 July, 1981.

<sup>86</sup>Duluth News Tribune, 17 April, 1966.

<sup>87</sup>Duluth News Tribune, 19 September, 1971.

<sup>88</sup>Two Harbors News Chronicle, 11 December, 1974

Historic Preservation Office to consider the nomination of the *Edna G* to the National Register of Historic Places it was stated that, "The 'Edna G' tugboat...is the only steam-driven, coal-powered tug still in service in the United States".<sup>89</sup> The *Edna G* was placed on the National Register of Historic Places June 5, 1975. "The *Edna G* is reputed to be the last steam-powered coal burning tugboat on the Great Lakes assigned an operating license by the U.S. Registry".<sup>90</sup> "The best research shows this tug to be the oldest handfired, steam powered tug in the world", stated Don Shank, former DM&IR General Manager.<sup>91</sup>

Beginning with the winter of 1974-'75, a decision was made to attempt shipping throughout the year. Usually the shipping of iron ore closes down during the winter months for about 12 weeks. The U.S. Government wanted to see if it was possible to ship iron ore on a year around basis. The *Edna G's* riveted-steel hull was reinforced for ice breaking duty. One of the busiest days, February 28, she brought in seven large ore carriers between 3:30am and 7:30pm.<sup>92</sup>

In 1974 it was predicted that, "Future activity at the Two Harbors ore docks will increase due to the signing of a taconite shipping agreement this week, beginning as early as 1977."<sup>93</sup> Shipping of taconite did increase and currently (1994) between 10-12 million tons of taconite is shipped annually from the harbor.

During the 1976 Bicentennial celebration, a one mile race was held between the *Edna G*, the modern Coast Guard Cutter *Naugatuck*, and the Corp of Engineers tug the *Marquette*. The *Edna*

---

<sup>89</sup>National Register Nomination Discussion, Lake County Historical Society, 19 March, 1975.

<sup>90</sup>Duluth News Tribune, 11 December, 1974.

<sup>91</sup>Two Harbors News Chronicle, 30 June 1984.

<sup>92</sup>Two Harbors News Chronicle, 25 June, 1975.

<sup>93</sup>Ibid.

G defeated the two more modern diesel tug boats in the first heat, a sprint race.<sup>94</sup> She lost the second race in which the tugs were pulling barges. "We'd a won the second race if they hadn't cheated. Supposed to start from a dead stop; they were already running. We cheated the 1st time," explained Chester Bislow a crew member of the *Edna G* at the time.<sup>95</sup>

In 1976, the crew was given an award for its cooperation in filming a T.V. series on the history of Northeastern Minnesota, as part of Maritime Heritage week.

In 1978, the DM&IR dedicated a new \$35.5 million storage and ship loading facility. For this occasion "the tug will sound her whistle and will enter the slip with her fire hoses spouting water high in the air".<sup>96</sup>

Chester Bislow, retired fireman on the *Edna G*, remembers his worst experience during the winter of '78-'79 breaking four feet of solid ice. It was cold and miserable. The tug is solid steel and it was so cold that icicles were hanging inside. They couldn't see out because windows were fogged up.<sup>97</sup>

In the '70s the crew knew it was all ending. A combination of large 1,000 foot ore boats and the advent of bow thrusters made the work of the *Edna G* obsolete. In 1980 it was estimated that a diesel powered tug would result in an annual reduction in operating expenses of \$30,000 to \$40,000.<sup>98</sup> If tugs were continuing to be needed, a diesel powered tug would have been purchased or leased.

During the 1970s there was an increase in taconite production capacity throughout northeastern Minnesota. But,

---

<sup>94</sup>Two Harbors News Chronicle, 4 August, 1975.

<sup>95</sup>Larry Granger, Memories and Discussion of the *Edna G*, Lake County Historical Society, 28 July, 1993, videotape.

<sup>96</sup>Two Harbors News Chronicle, 13 September, 1978.

<sup>97</sup>Larry Granger video.

<sup>98</sup>*Edna G Operating Logs*, Lake County Historical Society, Two Harbors, MN., 1980.

declining markets, economic recession and foreign competition combined to depress the domestic taconite industry in the 1980s. In 1994 there are only seven taconite plants operating in northeastern Minnesota.

"The *Edna G* sails out only once a day now to guide approaching ships to dock. Fewer ships call at Two Harbors. The *Edna G* can only guide, rather than maneuver or tug the big boats and they don't always request the tug's services any more".<sup>99</sup>

The cover of the Duluth phone book of 1980 had a large photo of the *Edna G*; on the inside it said the tug's home port was Duluth. Two Harbors residents were miffed. According to a city councilor, "The Duluth telephone directory is what really stimulated the whole thing." He was referring to the discussion and argument about what Two Harbors should do with the tug once she became the city's property. The rumor of it settling in Duluth was defused. She will be kept by Two Harbors if the town will maintain her.<sup>100</sup>

According to Adolph Ojard, her last captain, the boat still "runs like a sewing machine," but the big ships with bow-thrusters don't need the tug's help getting into dock any more. *Edna's* getting old. The ships keep getting bigger but *Edna* doesn't grow. You take a thousand-foot ship with a 105 foot beam and 60,000 tons of ore--that's like pushing on the ore dock." He scoffs at the idea that the tug's billowing coal smoke was a serious air pollution problem. "I caught lots of hell on that" he admits. The Coast Guard station in Duluth often warned him he was violating its pollution standards. "We'd leave a trail all the way from Two Harbors to Duluth," he says."

An announcement at the end of April, 1981 at the Two Harbors Area Development Council's annual spring banquet by guest speaker Jack Birk of the DM&IR that the *Edna G* was "not needed and seldom used in any capacity." She was to be retired. Also he announced

---

<sup>99</sup>Duluth News Tribune, 24 August, 1980.

<sup>100</sup>Duluth News Tribune, 24 August, 1980.

that ore dock #1 repairs were too extensive and expensive and he expected permanent closure in the next few years.<sup>101</sup>

In the summer of 1983, the Two Harbors Waterfront Development Committee hoped to restore the tug and use it for harbor tours and considered perhaps, "sending the tug on good will visits to other Great Lakes ports when not in use locally during the prime tourist season".<sup>102</sup>

She was donated by the DM&IR to the City of Two Harbors on June 15, 1984, and is now on display at the Two Harbors docks. Plans were abandoned for pulling the tug out of the water and renovating and displaying it on land due to trouble getting permits and money.<sup>103</sup> "To get the boat out of the harbor, some dredging needs to be done. To do the dredging, a permit is needed from the U.S. Army Corps of Engineers. And to get the permit, the city has to find a way to preserve the boat's historic integrity".<sup>104</sup>

" 'She was the finest tug on the Great Lakes,' said Adolph Ojard, 63, the last captain of the *Edna G*. 'She was such a beautiful handler. She handled like a yacht--you could turn her on a dime.... She's so beautiful' ".<sup>105</sup>

---

<sup>101</sup>Two Harbors News Chronicle, 6 May, 1981.

<sup>102</sup>Duluth News Tribune, 23 July, 1983.

<sup>103</sup>Duluth News Tribune, 3 December, 1992.

<sup>104</sup>Duluth News Tribune, 18 September, 1991

<sup>105</sup>Duluth News Tribune, 16 June, 1984.

## HOW SHE WORKED

### PHYSICAL PROPERTIES OF THE EDNA G

Original:  
750 horsepower engine  
Used about 25 tons of coal a week  
Engine #82  
Length overall: 102 feet  
Length on keel: 91 feet  
Breadth molded: 23 feet  
Depth molded: 18 feet  
Engine 80x40x30  
ONC B/W Boiler  
Anchor weight: 600 lbs.  
154 Gross tonnage  
Chain: 45 fathoms  
Registry #USS 137545  
Built in Cleveland, Ohio  
Type of vessel: tug, steel  
Propeller Size: 9 feet in diameter  
Rudder Size: 15.6 feet high/11 feet wide

The *Edna G* is a single-screw riveted steel tugboat. She is single-decked, with a two-cylinder 'fore and aft' reciprocating steam engine and a Babcock and Wilcox express (water-tube) boiler. Both above and below deck, the *Edna G* has retained much of its original appearance. The forward captain's cabin has rich wood paneling, built in bunks for four, light fixtures with opalescent globes, leather couches, and a head with ornate hardware, marble sink and swing-out commode. The aft crew quarters are spartan by comparison, with bunks sharing space with the adjacent engine room and drive shaft. The center of the below-deck area is comprised of the lower engine room, and toward the bow, the immense boiler which fronts a narrow platform accessing the coal bins housed within the hull. Above deck, the superstructure houses the engine room, upper boiler, galley and forward cabin, and the pilot house.

The pilot house has a stick lever rather than a traditional wheel for steering. Captains Ojard felt that this provided 'quicker and easier turning' on the tug.<sup>106</sup> This lever could be locked into place. Communications between the pilot house and the

---

<sup>106</sup>Duluth News Tribune, 11 July, 1971

engine room where done through a coded bell system. To communicate with both the ore dock office and incoming ships there was a six-channel FM radio with a 30 mile range. Originally, communication between the incoming ships and the tug consisted of steam whistle blows and light signals. The boat blows her whistle and the tug goes out and helps the boat. There's a compass (binnacle), and a telegraph which is a signaling device to the engineer below deck to operate the engine.

It took several hours to get up steam when the coal fired boiler was cold. It was usual for the tug to use about 25 tons of coal a week during operating seasons.<sup>107</sup> Boiler water is heated up and turns to steam which causes pressure. When the steam goes into the engine, it shoves the two pistons up and down which turn the propeller shaft and therefore the propeller. The propeller is reversed to go backward. On more modern engines the pitch is reversed on the propeller, not the entire propeller.

At the front of the boiler are two doors into which the fireman shovels coal; he uses whichever door is necessary to keep the fire even. A regular tow would last for about an hour. An ash pit below the fire doors is emptied over the side onto the dock or into the water. There was an annual inspection by the Coast Guard of the pressure relief valve on the boiler.

"The boiler room was darn hot. You'd blister if you didn't have a shirt on when you opened the door. It was worse when you cleared the fires. You had to pull all the fire out on deck, put water on it and shoot the ashes. Then you had to clean it up, every eight hours".<sup>108</sup> To shoot ash they used long shovels to take the ash out of the ash pit where a line that was 3" in diameter narrowing down to 1/4" into which they put the ash was thrown out

---

<sup>107</sup>Edna G Operating Logs, Lake County Historical Society, Two Harbors, MN., 1980.

<sup>108</sup>Chester Bislow, Memories and Discussion of the Edna G, Lake County Historical Society, 28, July, 1993.

over the side.<sup>109</sup>

"They used about 25 tons of coal a week. Coal is poured into the round hatch above and it goes down inside".<sup>110</sup> When they were shoveling coal, they couldn't smoke up the pilot house so they had to adjust their shoveling to the wind. Twenty-five shovels full were put in each door per shift when lying at the dock.

In addition to the engine, the fire gun or "monitor" could be lowered over the stern to propel the tug if needed.<sup>111</sup>

Once the tug has been called to the ship, the towline has to be attached. The ship drops a line to the tug where it's hooked onto the tug line where it's made as short as possible. The wind could cause problems getting a line down. It was all about cooperation.<sup>112</sup>

"Sometimes we were floating in the back, grabbing a tow line and had to hold on to the stanchion to keep from being washed over-board. We didn't have life jackets or nothing like that".<sup>113</sup>

The tows lasted maybe an hour and maybe the fireman had the rest of the shift to sit around and occasionally throw a few shovels full in. They kept the steam up, because they knew ahead when a freighter was coming in.

Crew members stayed on briefly; although occasionally as long as 6,8,10,12 hours at a time if the boats were stacked up, otherwise less. They worked as long as they had to in order to get boats in and out.

#### Repairs And Alterations

1915-17

Steel door and windows \$812,77

1920's, late

---

<sup>109</sup>Ibid.

<sup>110</sup>Gernander

<sup>111</sup>Duluth News Tribune, 7 November, 1971

<sup>112</sup>Gernander

<sup>113</sup>Bislow

- The pilot house of the tug was remodeled and her outward appearance hasn't changed since then.<sup>114</sup>
- 1948 "The new boiler is a B&W single-pass, header type, with a water cooled furnace."<sup>115</sup>  
New boiler at Knudsen Bros. shipbuilding and Dry Dock Co. yards, Superior, Wisconsin.<sup>116</sup>
- 1952 Can be converted to a fire boat. Has pump which can send 2,600 gallons a minute through her hoses. Arrived in Duluth to be fitted with a new shaft and a nine-foot propeller at Marine Iron and Shipbuilding Co.<sup>117</sup>
- 1962 - List of Necessary Repairs for Tug, to DM&IR Assistant Chief Mechanical Officer, Proctor.  
Renew bulwark timbers.  
Straighten bumper bracket  
Renew all pins in steering engine linkage.  
Paint engine room, pilot house, [etc.]<sup>118</sup>
- 1975 Hull reinforced for breaking ice.  
Radar currently being installed.<sup>119</sup>

---

<sup>114</sup>Duluth News Tribune, 1 July, 1971

<sup>115</sup>Duluth News Tribune, 4 March, 1948

<sup>116</sup>Duluth News Tribune, 3 April, 1948

<sup>117</sup>Duluth News Tribune, 7 December, 1952

<sup>118</sup>Edna G Box

<sup>119</sup>Two Harbors News Chronicle, 25 June, 1975

Appendix A

EDNA G STORIES

And Work Other Than Moving Ships In and Out of the Docks

RESCUES AND ASSISTS

November 17, 1902

The wooden steamer Robert Wallace loaded with iron ore and towing a barge "ripped out her stern post and stern pipe about 13 miles southeast of Two Harbors." She sunk and the barge "burned distress flares which were answered by the railroad tug Edna G of Two Harbors which brought the barge safely to that port".<sup>120</sup>

June 4, 1904

In a fog, the towing steamer Niagara "slid securely on the reef at Knife Island, listed heavily, and began to pound in the high swells." The station telegrapher for the D&IR...notified the Superintendent's Office at Two Harbors, eight miles away, and the ore docks tug Edna G. rushed down. ...all 13 persons aboard were transferred to the Edna G, fortuitously it turned out, as a grinding surf that night shattered [her].<sup>121</sup>

November 28, 1905

After about eight days of November storms and many wrecks, came an even fiercer storm in which four ships "came to grief" within 15 miles of each other on the North Shore. The tow lines parted between the steel steamer William Edenborn and her barge. In the snow filled darkness the pilot thought he was heading out to sea but instead pushed her bow well into the forest on the shore at Split Rock River. Being partly on land and partly in the water, the steamer broke in half. All but one crew member was able to stay in the fore part of the ship which was on land and reasonably comfortable inside. A local fisherman hiked for twelve hours in the snowstorm to report on the ship to Two Harbors. The tug Edna G came to their relief the next day. The barge towed by the Edenborn drifted to the base of Gold Rock where it, also, broke in two and was soon battered to pieces. Some of the men were able to climb to safety and"... the body of [one of the crewmen] was recovered and brought to Two Harbors on the tug Edna G." The steel steamer Lafayette and her barge were in trouble at almost the same time. A few miles northeast of Two Harbors the steamer was "whipped broadside into large rocks

---

<sup>120</sup>Dr. Julius F. Wolff, The Shipwrecks of Lake Superior, Lake Superior Marine Museum Association, Inc. Duluth, MN. 1979, 71

<sup>121</sup>Ibid., 74

about 50 feet offshore from the high bluff on the mainland.... With no time to drop anchors, the barge...came right on, ramming the stern of the steamer. In three minutes the Lafayette broke in two..." Many of the crewmen were able to get off safely, though with much difficulty. A fisherman hiked the six miles to Two Harbors where the tug was dispatched. "The tug, however, could not venture into the shallow water on the morning of the 29th and had to return to Two Harbors to pick up dories with which all of both crews remaining on the [barge] were brought to Two Harbors.<sup>122</sup>

December 10, 1905

In that same storm of Nov 28, on the South Shore, the flagship of the Pittsburgh Steamship Company fleet, the William E. Corey, was taking terrific punishment. The Edna G, along with four regular ore carrying steamers, two other tugs and necessary lighters were assembled in a massive salvage effort. For 12 days the flotilla struggled and the Corey was finally pulled off of Gull Island Reef in the Apostle Islands. During the effort the Edna G struck bottom, requiring repair.<sup>123</sup>

August 21, 1906

The steel steamer Frank H. Peavey, in fog and heavy rain enroute to Two Harbors, "ran well up on the beach at Castle Danger, about 12 miles northeast of her destination. [Two crewmen] hiked to Two Harbors during the early morning and the tug Edna G. sailed to her relief". It took two days to pull her off.<sup>124</sup>

May 22, 1922

A steamer rammed and sunk the barge Harriet B. three miles southeast of Two Harbors in a heavy fog. The Edna G arrived just in time to take off the 10 crewmen.<sup>125</sup>

May 16, 1926

"...about 18 miles off Duluth, a small wooden motor ship met her end. The...gasoline driven Firien...was undergoing a trial run on a Sunday evening after some rebuilding. Suddenly, she took fire, and with flames fed by the gasoline tank, she soon was a goner. [The crew] launched the yawl and were soon picked up by the tug Edna G...from Two Harbors".<sup>126</sup>

---

<sup>122</sup>Ibid., 83-4

<sup>123</sup>Ibid., 83-4

<sup>124</sup>Ibid., 87

<sup>125</sup>Two Harbors News Chronicle, 1 August, 1976

<sup>126</sup>Wolff, 129

July 13, 1937

The ship Thomas Lynch struck No. 2 dock in Two Harbors. "Edna G assisted."<sup>127</sup>

Oct. 27, 1946

A fisherman who had been in the water for a while was rescued by Captain Pinney. If there hadn't been a new spotlight on the tug, he may not have been found.<sup>128</sup>

January, 1980

On a stormy night the Edna G, with faulty radio equipment, was sent to find a local fisherman on wind-whipped Lake Superior in a blinding snowstorm. It took three and one-half hours before he was rescued. The DM&IR cited the crew's bravery.<sup>129</sup>

#### OTHER WORK

"We'd do almost anything. The company said 'Go Help.' We never didn't go".<sup>130</sup>

1950s

Fought fires on the fishing shacks.<sup>131</sup>

1975

The tug was called to Duluth to "assist the ore carrier Irving S. Olds from its icy berth at the DM&IR ore docks in Duluth." They helped break the ice and pushed the ship around in three miles of one foot thick ice inside the lift bridge.<sup>132</sup>

1976

The crew was given an award for their cooperation in filming a T.V. series on the history of Northeastern Minnesota, as part of the Maritime Heritage week.<sup>133</sup>

June 3, 1977

The boiler furnaces were used to destroy about \$15,000 worth

---

<sup>127</sup>Typed on a small piece of paper, no other information, in Edna G File, Duluth Waterfront Museum/Canal Park Visitors Center, Duluth, MN.

<sup>128</sup>Two Harbors News Chronicle, 1 August, 1976

<sup>129</sup>Duluth News Tribune, 2 March, 1980

<sup>130</sup>Bislow

<sup>131</sup>Ibid.

<sup>132</sup>Two Harbors News Chronicle, 1 August, 1976

<sup>133</sup>Duluth News Tribune, 8 November, 1976

of illicit drugs confiscated by Two Harbors lawmen over the two preceding years.<sup>134</sup>

No Date

Took scows out for dredging. Washed the ore docks.  
Took doctor out to an ore boat or took someone back to Two Harbors if he'd been hurt. Pulled a broken-down boat eight hours.<sup>135</sup>

STORIES

Circa 1954

According to Captain Ojard, the last captain of the tug, "It was when I first started there. The steamer Edenborn arrived about 11pm and the northeast winds were so strong, the skipper didn't want to come in. But, I talked him into it.

"We took him well up into the harbor so he was well up into the wind. The idea is to get the ship so the wind is over the stern when coming up to the dock.

"Two different times he suggested that we let go of our tow on him. He wanted to go back out in the lake again. But, I convinced him to go through with it.

"When the ship ways[sic] laying across the number six dock, she was rolling like she was out in the lake and it all turned out for the best. He made a good landing, but he temporarily forgot to reverse his engine.

"I blew him two whistles. By the time the ship was stopped, he had run one wire off his stern winches and the bow of the ship was up in the sand".<sup>136</sup>

1975

Captain Ojard recalls carrying several U.S. Steel Corporation executives in from an ore carrier to shore in thick fog. One said, "Adolph, I can't see a thing." Ojard, steering only with a compass, says he replied, "Don't feel bad, I can't either." A week later a radar was delivered.<sup>137</sup> "If we'd a-put that on top of the pilot house, it would have caved in." They successfully installed one later.<sup>138</sup>

Fall, 1980

Ojard "...boasts of the fireman who lost 13 pounds keeping the coal burner fed in one furious, five-hour trip. It was last

---

<sup>134</sup>Ibid., 3 June, 1977

<sup>135</sup>Bislow

<sup>136</sup>Two Harbors News Chronicle, 29 July, 1981

<sup>137</sup>Duluth News Tribune, 25 July, 1981

<sup>138</sup>Captains' File

fall, he says, when the Edna G went to the aid of a 725-foot ship that had lost power 14 miles east of Two Harbors".<sup>139</sup>

No Date

Captain Ojard; "I recall one night. The Arthur Anderson was due here. It was late in December and blowin' a gale from the northeast." Despite high winds and heavy snow that might have deterred some ship captains, Ojard moved the Benjamin F. Fairless from one DM&IR dock to another to make way for the Anderson. "I knew (Capt.) Harold Beagle would be here. He was a rough-weather man" he said.

"Sure enough, he was here at 2 o'clock that morning. He wanted to make the swing around the breakwall and come straight in." But Ojard advised a less direct approach, to work with the waves as much as possible.

"I could see him. He rolled so that you'd see the whole top of the deck. Then he rolled the other way so all the lights would disappear.

"We were both pretty scared. Still, we were b.s.ing back and forth." After some communication and more sweating, the Anderson was safely docked.<sup>140</sup>

No Date

"One winter we broke the ice to the coal dock, coaled up, broke the ice back to the ore docks, made a path around the docks and had to go get coal again. We used so much coal because the ice was so thick".<sup>141</sup>

No Date

"Sometimes [in a storm] we were floating in the back, grabbing a tow line and had to hold on to the stanchion to keep from being washed over-board. Didn't have life jackets or nothing like that".<sup>142</sup>

No Date

Chester Bislow recalls having to shine the brass on the tug every Friday. He hated it so much that one Friday he painted it all green. It took him a long time to scrape it all off.

The only use of the galley that Chester Bislow can recall was having fish feeds--herring--and half of Two Harbors would come down.<sup>143</sup>

---

<sup>139</sup>Ibid.

<sup>140</sup>Ibid.

<sup>141</sup>Bislow

<sup>142</sup>Ibid.

<sup>143</sup>Ibid.

Appendix B

**Financial Data and Personnel**

INCOME

1950 -- \$159,991.96<sup>144</sup>  
1953 -- \$281,328.25<sup>145</sup>  
1961 -- \$219,182.15<sup>146</sup>

EXPENSES

1960, May--Operating statement: labor, service, fuel,  
supplies, etc. \$18,235.<sup>147</sup>

TOWING RATES

1948 Lake to Dock: \$51.71 - \$71.10  
Transfer to Harbor: \$36.28 - \$51.48<sup>148</sup>

1959 Depends on length and breadth of carrier.  
in or out of harbor: from \$62.05 - \$237.25  
all other transfers: from \$45.90 - \$175.50  
other factors also are relevant including whether under own  
power or not, more during the three winter months\* when the  
tug is operating.  
miscellaneous: \$80 an hour.<sup>149</sup>

1966 Lake to Dock and Transfer in Harbor: from \$119.65-232.87.<sup>150</sup>

1979: from \$430 to \$1,020 except for the *Presque Isle*, an ore  
boat that is much longer than the others, \$1,745.<sup>151</sup>

---

<sup>144</sup>Log, 1947-1950

<sup>145</sup>Log, 1951-1956

<sup>146</sup>Log, 1959-1962

<sup>147</sup>*Edna G* Box

<sup>148</sup>Ibid.

<sup>149</sup>Ibid.

<sup>150</sup>Ibid.

<sup>151</sup>Log, 1976

CAPTAINS, CREWS, AND PAY

Pay and Payroll Procedures

1897

July - Payroll records.

	Time	\$	Dr. (Deduct)
Cox, Joseph, Master	310	111.11	
O'Brien, Chris, 1st. Engr.	310	90.00	1.50
McDonald, Joe, 2nd Engr.	260	41.93	.75
Faber, Tony, Fireman	310	45.00	.75
Sinclair, Neil, Deck Hand	310	45.00	1.50
Budd, Dr. J.D., Two Harbors		4.50	
		Total Paid	385.30 <sup>152</sup>

1919, May - 9 month season guaranteed 30 days, 8 hour days

	Edna	Mississippi
Master	\$130.00	\$177.50
Mate	125.00	177.50
Chief Engineer	115.00	162.50
2nd Engineer	110.00	162.50
Fireman & Lineman	60.00	95.00 <sup>153</sup>

1920, Jan. - per Month - Guaranteed 12 hrs a day, 30 days a month

Captain & Mate	202.50
1st & 2nd Engineers	187.50
Fireman & Lineman	125.00 <sup>154</sup>

1920, May Rate for 30 days

Harbor Master	165.00
Master, 2	240.00
Captain	240.00
Mate	240.00
Chief Engineer, 2	240.00
2nd Engineer, 2	240.00
Lineman, 4	165.00
Fireman, 7	165.00
Doctors	12.50 <sup>155</sup>

<sup>152</sup>Microfilm M497, Vol. 15, roll 6,0112, DM&IR Co. Payroll Records, Microfilm Edition, Minnesota Historical Society, St. Paul, MN.

<sup>153</sup>Edna G Box

<sup>154</sup>Ibid.

<sup>155</sup>Microfilm, Vol. 15

1920, May

Name	Occupation	Rate(of pay for 30 days)
Hill, Wm	Fireman	\$165.00
Pegelow, W. A.	Fireman	165.00
Nelson, John G	Fireman	165.00
Johnson, Olof M.	Fireman	165.00
Hoganson, H.	Fireman	165.00
Peterson, H.	Fireman	165.00
Erageet H.	Fireman	165.00
Brower, H. F.	Master	240.00
O'Meara, John	Captain	240.00
Damoure, Geo.	Engineer	240.00
LeClair, John	2nd Engineer	240.00
Sandvik, S.	Linesman	165.00
Jensen, C.	Linesman	165.00
Drs. Burns & Christensen,	Chief Surgeons, Two Harbors	12.50
Total		<u>\$1,950.00</u>

Name	Occupation	Rate for 30 days
Cox, Joseph,	Harbor Master	\$165.00
Fox, Henry	Master	240.00
Green, A.J.	Mate	240.00
Poulin, F.	Chief Engineer	240.00
Stewart, Wm.	2nd Engineer	240.00
Johnson, H	Linesman	165.00
LeBlanc, F	Linesman	165.00

1940 pay for one-half month

	Per day	Days	Total
Masters, 3	\$11.00	16	\$176.00
Engineers, 3	8.37	16	133.92
Linemen, 3	8.37	16	133.92 <sup>156</sup>

#### Crew Shifts

1950s and perhaps later - 3 full crews went around the clock in the earlier days.

---

<sup>156</sup>Microfilm M497, Vol. 58, roll 26,0066, DM&IR Co. Payroll Records, Microfilm Edition, Minnesota Historical Society, St. Paul, MN.

1959, April [per day, presumably]  
Licensed men -- Master, Captain & Engineer  
1st shift, \$26.59; 2nd shift, \$26.91; 3rd shift, \$27.07  
Unlicensed men -- Firemen and Linemen  
\$21.52 \$21.84 \$22.00<sup>157</sup>

1975 - On duty 24 hours a day and three 3-man crews.<sup>158</sup>

1976 - "Mates replaced captains when second and third shifts were needed as the tug worked around the clock."<sup>159</sup>

#### Crew Members

1916 - Capt. Joseph Cox, George DeMoure, Fabian Poulin, John LeClair, Bill Stewart, Capt. Henry Fox, Axel Peterson and Fabian LeBlanc(a cook) playing cards.<sup>160</sup>

Early Captains were: James Cox, Arthur Green, Henry Fox, Frank Moore, James Swan, Evald Halden, H. Brower, John Kragseth, John O'Mare and Ed Ditcel. Early engineers were: William Erion, James McDonald, Harry Woods.<sup>161</sup>

1950 - Firemen, Sivert Sandvik, Chester Bislow and Burton Benson; deckhands, Harry Hoganson, Jr., Harry Brower, Jr. and Alf Stromme. Dick Hay, William Stewart, John LeClair, George DaMour and Sivert Sandvick.

#### SEASON AND CAPTAIN

#### ENGINEERS

1930-1936

H. Fox  
H. F. Brower  
A.S.Branscombe

F. Poulin  
Geo. DeMour  
Wm. Hill

1937

H. Fox  
H.F. Brower  
H.A. Johnson

F. Poulin  
Geo. DeMour

1938-40

H. F. Brower  
H. S. Johnson  
J. Pinney

F. Poulin  
Geo. DeMour  
J. B. LeClair

---

<sup>157</sup>Two Harbors News Chronicle, 29 July, 1981

<sup>158</sup>Duluth Herald, 19 June, 1971

<sup>159</sup>Two Harbors News Chronicle, 28 July, 1976

<sup>160</sup>Duluth Waterfront Museum, Edna G File, photocaption

<sup>161</sup>Two Harbors News Chronicle, 22 June, 1950

1941

H.F. Brower  
 H.A. Johnson  
 J. Pinney  
 A.S. Branscombe

F. Poulin  
 Geo. DeMour  
 J. B. LeClair

1942

H.A. Johnson  
 J. Pinney  
 A.S. Branscombe

F. Poulin  
 Geo. DeMour  
 J.B. LeClair

1943-45

H.A. Johnson  
 J. Pinney

F. Poulin  
 Geo. DeMour

1946-50

H. A. Johnson  
 J. Pinney  
 A.S. Branscombe

F. Poulin  
 Wm. Hill  
 E.H. Ojard<sup>162</sup>

DULUTH, MISSABE AND IRON RANGE RAILWAY COMPANY  
 IRON RANGE DIVISION

Seniority Roster of Tugman as of January 1, 1967

MASTERS	MASTER	ENGINEER	LINEMAN	FIREMAN
1 Ojard, Adolph N.	4-13-55		6-10-54	
2 Male, Robert S.	8- 3-57		4-19-55	
3 Peterson, Iver J.	9- 1-58			
ENGINEERS				
1 Ojard, Edward H.		4-19-46		9- 7-38
2 Jarvi, Lauri O.		4- 4-51		
3 Bislow, Chester I.		5-29-55		11-19-42
LINEMEN				
1 Johnson, Robert A.			4- 9-59	
2 Fossum, Warner A.			6- 1-59	
FIREMAN				
1 Benson, Burton				3-24-49
2 Johnson, Richard M.				4- 1-53
3 Skadberg, Alvin B.				5- 9-58
4 Halden, John D.				4-25-66
5 McGregor, John E.				10-17-66

163

<sup>162</sup>Two Harbors News Chronicle, 22 June, 1950

<sup>163</sup>Edna G Box

## Captains And Other Stories

### 1952 - CAPTAIN HENRY FOX AND THE EDNA G

Henry Fox was born in Colchester, Ontario, Canada, on April 2, 1868. When he was 13 years old he ran away from home. He was picked up by the captain of a boat who then took him on as a cabin boy. For several years he worked on the lower lakes.

He came to Duluth in 1899, where he became captain of a ferry between Duluth and Superior.

In 1907 he became second captain with Captain Joseph Cox on the Edna G, in Two Harbors. In 1911 the Fox family moved to Two Harbors.

Around 1912, the fire tug Torrent was brought to Two Harbors. Captain Joseph Cox then transferred to the Torrent remaining with her the entire time she was employed in the harbor. During the period Joseph Cox spent on the Torrent, the captaincy of the Edna G then passed to Henry Fox who continued as skipper until he left the service.

When Dock No. 2 was rebuilt of concrete and steel in 1925 the Torrent was sold to the Milwaukee Fire Department and Captain Cox returned to the Edna G to finish out his career.

While a ship can have only one captain, the Edna G operated 24 hours a day during the ore shipping season so to allow for continual operation three separate crews worked eight hour shifts.

Captain Fox retired in 1937 after serving on the Edna G for 30 years. He died in 1952 and was almost 84 years of age. Mrs. Fox died in 1944.<sup>164</sup>

1981

An era comes to a close....

### CAPTAIN TO RETIRE WITH THE EDNA G

Retire - Ojard commented, "I was practically born with my foot in a boat. I started sailing in '39 and I put my application for the Edna G in that year. It took 15 years before I finally got it."

He applied for a job on the tug then because it was a sailor's dream, he said. You could do what you liked to do and stay near home.

Ojard sailed on the Great Lakes ore boats. Then, he went to officer training school in New London, Conn. for the United States Maritime Service. For the next few years he kept busy sailing.

Ojard then fished commercially for two and a half years

---

<sup>164</sup>Two Harbors News Chronicle, 6 May, 1981

in Knife River before he began working as a boat loader on the ore docks in Two Harbors in 1949. He took command of the Edna G in 1954.

"In the earlier days, we had three full crews and they went around the clock," Ojard said. They first towed barges and smaller steam ships.

Ojard sailed with the Edna G until 1962 when the railroad closed the Two Harbors port down because of lack of business. All the ore was then shipped out of Duluth.

Ojard tugged three years in Alaska when the Edna G was tied up. But, he returned in 1966 when the tug was put back out and sailed the Edna G until this year.

According to Ojard—a man who has sailed oceans as well as lakes—"Lake Superior can be about as tough as you can get." There is not enough room to ride out a storm without being hung up on some rocks.

Learning to sail when Lake Superior's northeaster blows up comes with experience, the retiring captain said.

Ojard had nothing but praise for the crew that sailed with him on the Edna G. "The credit goes to the crew," he said. "They did the work. I just happened to be the captain. They're the ones who kept her running and she did run like a sewing machine."<sup>165</sup>

---

<sup>165</sup>Ibid., 29 July, 1981

## SOURCES CONSULTED

### Books & Magazine Articles

Anfinson, Scott F. ed. Archaeological and Historical Studies of Minnesota's Lake Superior Shipwrecks. Minnesota State Historic Preservation Office, Minnesota Historical Society. June, 1993.

Davis, E. W., Pioneering With Taconite. Minnesota Historical Society. St. Paul, MN., 1964.

DM & IR, A History. "The Missabe Iron Ranger", July, 1959.

Iron Ore History, Lake County, Vol. II, Lake County Historical Society, Two Harbors, Minnesota. Unpublished.

King, Frank A., The Missabe Road...The Duluth, Missabe and Iron Range Railway. Golden West Books, a Division of Pacific Railroad Publications, Inc., P.O. Box 8136, San Marino, CA. 91108-1972.

Two Harbors Centennial Commission in Coordination with the Lake County Historical Society. Two Harbors 100 Years: A Pictorial History of Two Harbors, Minnesota and Surrounding Communities. 1983.

Wolff, Dr. Julius F., The Shipwrecks of Lake Superior. Lake Superior Marine Museum Association, Inc. Duluth, MN., 1979.

Newspapers - Most of the newspaper references did not have page numbers. Primarily articles were cut out of the following references.

Cleveland Plain Dealer, May 23, 1896, p.6.  
Duluth Herald  
Duluth News Tribune  
Minneapolis Tribune  
Two Harbors News Chronicle

### Papers

Duluth Missabe & Iron Range Railroad Edna G file,  
Engineering Offices, Proctor, MN. File now at Lake  
County Historical Society, Two Harbors, MN.

Duluth Waterfront Museum/Canal Park Visitors Center, Canal  
Park, Duluth, MN. Edna G file.

Edna G Boxes, Archive at Lake County Historical Society, Two  
Harbors, MN.

Edna G Captain's Files, Lake County Historical Society, Two Harbors, MN.

Fraser Shipyards, Edna G File, Superior, WI.

Great Lakes Historical Society, Inland Seas Maritime Museum, Vermillion, OH.

Letter 1., April 4, 1919, from Federal Auditor to Assistant Director of Operations, Great Lakes Department, U.S. Shipping Board, MHS #1

Letter 2., January 18, 1983 from Robert Bruce, consulting engineer on planning and design for Edna G, at LCHS files.

Logs, Edna G Operating Logs, Lake County Historical Society, Two Harbors, MN.

Meeting, March 19, 1975 Discussion of National Register Nomination, LCHS.

Minnesota Historical Society, DM&N (Duluth, Missabe & Northern Railroad and DM&IR (Duluth Missabe & Iron Range Railroad) files, Boxes 1,2,3,16,17,25,29,43,46. #145K6 6F. St. Paul, MN.

National Register of Historic Places/Minnesota Historic Preservation Office, Edna G file, Minnesota Historical Society, St. Paul, Mn.

Plans of the Cleveland Shipbuilding Co., Cleveland, OH., May 8, 1896. University of Detroit, Detroit, MI. Marine Historical Collection: Record of Great Lakes Ships, Edna G file.

#### Video Tapes

Labadie, Patrick. "History of Shipping and Tugs on the Great Lakes." Presentation given in Two Harbors, July 28, 1993. Lake County Historical Society.

Nelson, Charles. Minnesota Historic Architect, Presentation given July 28, 1993 in Two Harbors, Lake County Historical Society.

Granger, Larry. "Memories and Discussion of the Edna G", July 28, 1993. Lake County Historical Society.

Bislow, Chester, crew member of the Edna G for 41 years. "Memories and Discussion of the Edna G", July 28, 1993. Lake County Historical Society.

Gernander, Sidney, marine engineer on tour of the Edna G,  
July 28, 1993. Lake County Historical Society.

Microfilm

Microfilm #1, Microfilm M497, Vol. 15, roll 6, 0112, DM&IR  
Co. Payroll Records, Microfilm Edition. Minnesota  
Historical Society, St. Paul, MN.

Microfilm #2, Microfilm M497, Vol. 58, roll 26,0066, DM&IR  
Co. Payroll Records. Microfilm Edition. Minnesota  
Historical Society, St. Paul, MN.

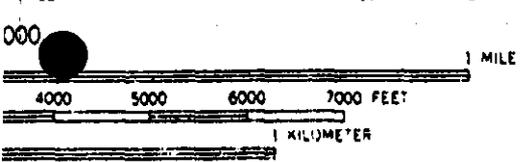
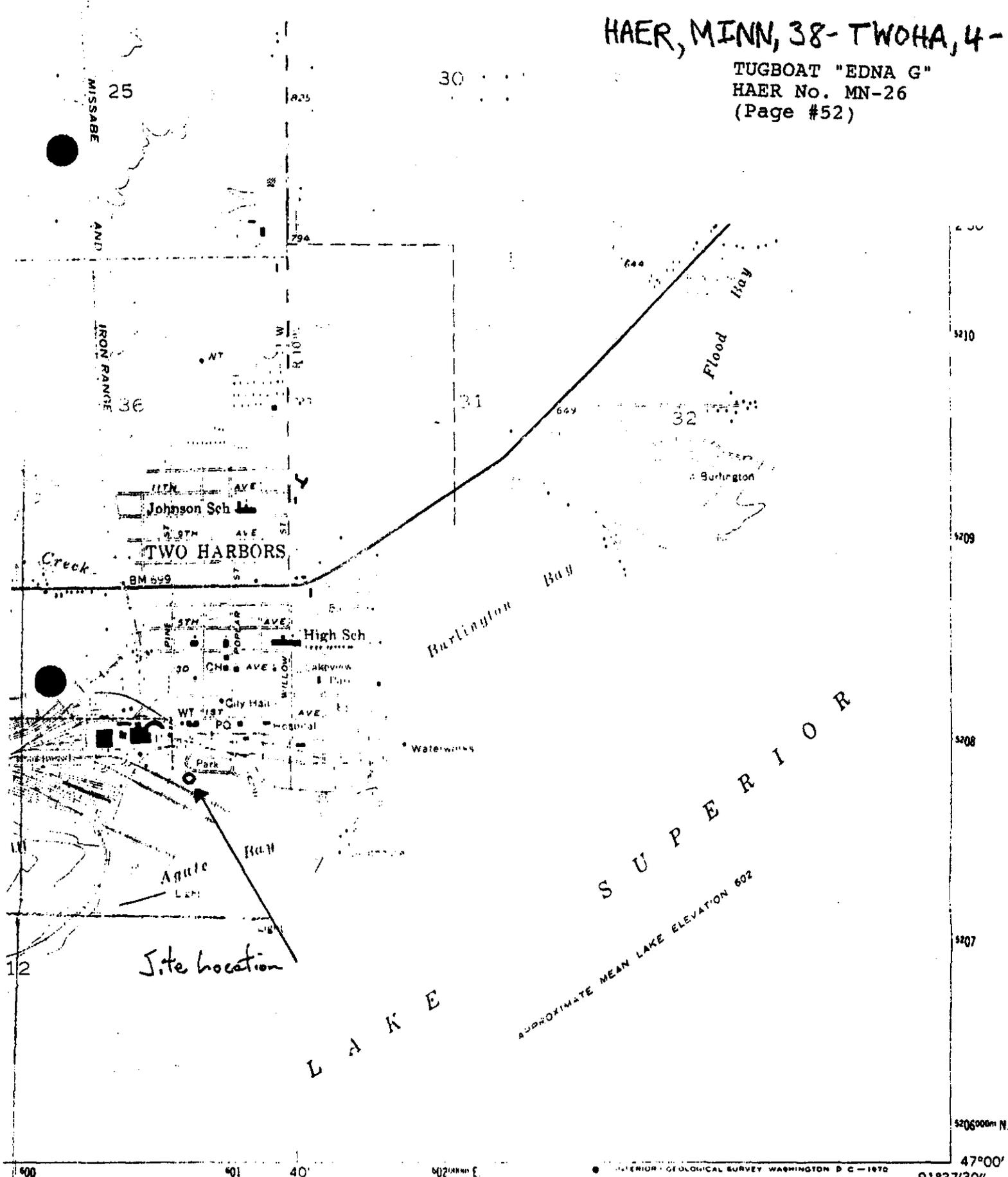
Personal Contact

Peterson, Ron. Manager Fraser Shipyards, Superior WI.,  
May 5, 1994 [Fraser].

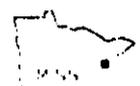
Additional Information is available in Volumes I and II of the  
"Iron Ore Industry", Lake County Historical Society,  
Two Harbors, MN. Unpublished Manuscripts

# HAER, MINN, 38-TWOHA, 4-

TUGBOAT "EDNA G"  
HAER No. MN-26  
(Page #52)



10 FEET  
SEA LEVEL  
VERTICAL CURVATURE



L A K E  
S U P E R I O R  
APPROXIMATE MEAN LAKE ELEVATION 602  
SUPERIOR GEOLOGICAL SURVEY WASHINGTON D C - 1970  
47°00'  
91°37'30"

- ROAD CLASSIFICATION
- Heavy-duty —————
  - Medium-duty —————
  - Light-duty - - - - -
  - Unimproved dirt .....  
U. S. Route