

King of the iron-ore haulers

A 1937 amalgamation of two Minnesota pikes, Missabe Road is memorable on many counts • **By Steve Glischinski**



No. 231, one of Missabe's 18 famous Yellowstone 2-8-8-4s, passes two brand-new successor SD9's (among 74) at Proctor Yard in May 1959.

Marvin Nielsen

From 1938 until it was purchased by Canadian National in 2004, the Duluth, Missabe & Iron Range Railway was “King of the Iron-Ore Haulers.” Its job was lugging iron ore, and later taconite, from mines in northeastern Minnesota to Lake Superior ore docks at Duluth and Two Harbors, Minn. “The Missabe Road,” as it was known, was fascinating for its single-commodity nature and for pulling its trains with big steam locomotives and then colorful maroon diesels. For most of its life, the road was owned by the mighty U.S. Steel Corp., which moved the ore across the Great Lakes in its own lakeboats. At USS mills, especially those on or near the Lakes from Illinois to Pennsylvania, blast furnaces readied the ore for steel-making.

It all began when the high-grade iron-ore deposits of the Vermilion Iron Range were discovered in the 1860s. The Duluth & Iron Range Rail Road was chartered in 1874 to build from Duluth to Babbitt. Philadelphians Charlemagne Tower and George C. Stone acquired the charter in 1881, and were successful in building a 68-mile line from Agate Bay (now Two Harbors) to Tower, Minn. The D&IR carried the first trainload of Minnesota iron ore on July 31, 1884.

To the west of the Vermilion was the Mesabi Range. Lewis Merritt and three

of his sons discovered the Mesabi in November 1890, near the present-day town of Mountain Iron, just west of Virginia, Minn. Mesabi, sometimes spelled Mesa-ba, Missabe, or Missabay, means “giant” in the Chippewa Indian language.

To move the ore, the Duluth, Missabe & Northern Railway was incorporated June 23, 1891, and construction began in 1892. DM&N took its ore trains to Stony Brook, Minn. (south of Culver), and the Duluth & Winnipeg (later Great Northern) hauled it to its docks near Superior, Wis. DM&N moved the first trainloads of Mesabi ore on October 17, 1892.

Dissatisfied with this, and lured by financial inducements from the city of

Duluth, the Merritts decided to build to Duluth and erect their own docks. Construction included a large yard at Proctor. From there to the docks, 7 miles, the line descended 600 feet on a maximum 2.2 percent grade—forever called Proctor Hill—which fortunately favored loads. The first trainload of Mesabi ore arrived at the docks on July 22, 1893.

Construction of the Duluth extension was ill-timed, though. With the financial panic of 1893, the Merritts fell into debt, and control of the railroad and mining properties went to John D. Rockefeller. Charlemagne Tower sold the Duluth & Iron Range to Illinois Steel in 1887, which was succeeded by Federal Steel,



Two-year-old Alco RSD15 No. 51 weighs cars of “commercial freight” (as DM&IR termed its relative handful of non-iron-ore shipments) at the Two Harbors scale track on July 2, 1961.

J. David Ingles



Empty ore cars roll north behind a pair of SD9's near Saginaw, about 15 miles north of Proctor, on July 24, 1976. Lead unit 149 wears the original paint scheme, modified with the yellow vertical end stripe, while the rear unit is in the later "arrowhead" livery. Although the main lines had CTC signals, Missabe normally ran "left-handed."

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then United States Steel. By 1901, both the D&IR and DM&N were under U.S. Steel control. USS upgraded both railroads with heavy rail and double track, ordered bigger locomotives and larger cars, and built sizeable shops and roundhouses at Proctor and Two Harbors.

In 1915 DM&N leased the Spirit Lake Transfer Railway, a link between DM&N at Adolph, near Proctor, and the Interstate Transfer Railway at Oliver, Wis., across from Steelton, Minn. The Interstate Transfer ran from Oliver to Itasca, in eastern Superior, giving the DM&N connections with several large railroads including Northern Pacific, Chicago & North Western's "Omaha Road," and three members of the Canadian Pacific family: Minneapolis, St. Paul & Sault Ste. Marie ("Soo Line"); Wisconsin Central; and Duluth, South Shore & Atlantic.

Putting it all together

DM&N and D&IR remained separate until January 1, 1930, when the DM&N leased the D&IR and consolidated operations. Then on July 1, 1937, the DM&N merged with the Spirit Lake Transfer to form the Duluth, Missabe & Iron Range Railway. DM&IR then acquired ownership of D&IR and Interstate Transfer, and they became part of the new corporation on March 22, 1938. Reminders of the two big predecessors remained in the DM&IR's two operating divisions, named Iron Range and Missabe, made up primarily of the predecessors' tracks.

The Great Depression drastically reduced ore traffic. In 1932, not a single all-ore train was run—the small amount of ore that had to be shipped was carried in mixed freights. World War II reversed the road's fortunes, of course, and the postwar boom resulted in an even higher demand for ore, with an all-time tonnage record being set in 1953.

Missabe had minimal passenger service but ran it in the classic manner. Into the 1950s, handsome Pacifics pulled heavyweight steel RPO's and coaches, two with solarium observation sections. At the end of World War II, the Missabe still provided service between Duluth and Ely (Winton), and Duluth and Hibbing, with the Hibbing train connecting with one from Iron Junction to Virginia.

In 1953 the company purchased a Budd RDC3 that was put in service on

the Iron Range Division, making a daily round trip between Duluth and Winton via Two Harbors. Duluth–Hibbing passenger service was discontinued in 1953, but the Minnesota Supreme Court ordered its restoration in 1956. The RDC assumed the additional duty, making the two round trips each day for a total mileage of 400. At the end of 1957, service to Hibbing ended again; the Winton round trip last ran on July 15, 1961, ending Missabe passenger service. The car went to NP, then Amtrak, then to Canada.

Big power for big trains

In the early 20th century, DM&N purchased 16 2-10-2s and 12 2-8-8-2s from Baldwin. After the lease of the D&IR in 1930, DM&N sent some of the Mallets to work on the sawtooth grades north of Two Harbors. As World War II



SD38AC No. 203 splits a Route 7 intersection near Virginia with a May 27, 1979, Thunderbird Mine raw-taconite shuttle to Fairlane. The SD38's had bells on the long hood for the shuttles.

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SDM 305 leads an SD18 and an SD38 north on a limestone train on the now-single-track main at Grand Lake, near Saginaw, on July 14, 1992.

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Again at Grand Lake curve, hot taconite pellets from Eveleth “steam” on an extra behind an SD40-3/SD38AC/SDM trio in February 2000.

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loomed and the U.S. began shipments to the Allies, the Missabe was relying on locomotives over 20 years old. New power was needed, and the result was Missabe’s famous 2-8-8-4 Yellowstones (the name given by first owner Northern Pacific, for the river that it followed in Montana).

Eight came to DM&IR from Baldwin in 1941. They were thoroughly modern, with vestibule cabs, roller bearings, and huge centipede tenders. Distinctive with long gray boiler jackets, they were more powerful than Union Pacific’s Big Boys. Ten more Yellowstones came in 1943.

As the traffic boom continued after the war, Missabe in 1949 purchased nine 0-10-2s from U.S. Steel’s Union Railroad at Pittsburgh, which replaced the Mallets on Proctor Hill. In 1951, Missabe picked up 18 2-10-4s from Bessemer & Lake Erie, another USS road, which was dieselizing. Missabe’s steam fleet peaked at 172 locomotives in 1951, and the road remained 100 percent steam until 1953, when 15 EMD SW9 switchers arrived.

Although it borrowed F7’s from the Bessemer, DM&IR chose EMD’s versatile 1,750 h.p. SD9 to dieselize its road trains. Four orders during 1956–59 brought 74 of the high-nose C-C units to the property, and a final order for 19 of the successor SD18 in 1960 slammed the door on Missabe steam. In 1959, DM&IR purchased six Alco RSD15’s for switching at Two Harbors, but sold the “orphans” to B&LE in 1964. A new shop at Proctor was home for the diesels, and the steam shop in Two Harbors closed; a planned diesel shop there never materialized.

The last Yellowstones ran on ore

trains in July 1960, although they hauled occasional excursions during 1961, and Yellowstone 229 steamed at Proctor as late as November 1961. The last steam move was an excursion with 2-10-2 No. 514 on September 29, 1962. Three of the Yellowstones are preserved, at Duluth, Proctor, and Two Harbors.

Missabe relied on the SD9’s and 18’s until 1971, when it began buying EMD SD38’s. With frequent trading of locomotives among several U.S. Steel roads (Elgin, Joliet & Eastern and Birmingham Southern also among them), Missabe ultimately assembled a fleet of 23 SD38-2, SD38AC, and SD38DC units. The 22 surviving SD9’s and 18’s were rebuilt as “SDM’s” with chopped noses and new power assemblies in the 1980s and ’90s.

In 1996–97, “new” power arrived: 20 rebuilt 3,000 h.p. SD40-3’s, all but two of which were former Southern Pacific family “tunnel motor” SD45T-2’s.

Taconite: the Missabe’s savior

Although World War II and the boom that followed were beneficial at the time, the long-term effect for DM&IR was negative. Natural iron-ore reserves were greatly depleted, and Missabe faced losing its traffic base. During 1963–66, the Two Harbors docks were closed because there wasn’t enough traffic to warrant keeping them and those at Duluth open. One reason for the shutdown was the 1963 closure of Pioneer Mine at Ely, the last one on the Vermilion Range.

Moreover, steel firms after World War II increased their efforts to find natural ore alternatives. They discovered that

taconite, a low-grade iron-bearing rock in abundant supply, could be a suitable iron-ore replacement once an economical process was found to upgrade and pelletize the rock. They succeeded, and in the 1960s and ’70s three large taconite plants were built along the Missabe: Fairlane near Forbes, Minntac at Mountain Iron, and Minorca near Virginia.

Taconite, when molded into pellets, is reduced more quickly and uniformly to molten iron, and it increases the production of blast furnaces. Taconite pellets also made transportation easier: they did not freeze like natural ore, which required expensive thawing operations during cold-weather months. Since pellets could be stockpiled at lakeside storage facilities, the Missabe began year-round operation; previously, the ore trains stopped running when the Great Lakes harbors froze over. In 1973, for the first time, Missabe Road carried more taconite than natural ore, and in the ensuing years, natural ore shipments would decline to almost nothing.

The closure of natural ore mines and the decline of freight (as opposed to mineral) shipments led to abandonment of the Coleraine Branch to the west end of the Mesabi Range in 1977. The original D&IR line to Tower and Ely came up in 1982, and the next year, 25 miles of the logging branch northeast from Wales was lifted. The double track on the Iron Range Division had been reduced to single in the 1960s, and the Missabe Division was single-tracked in 1988.

Also in 1988, U.S. Steel spun off the DM&IR and its other ore railroads and

shipping companies to subsidiary Transstar, selling majority control to the Blackstone Group. In 2001, DM&IR and other holdings were moved from Transtar to Great Lakes Transportation, fully owned by Blackstone, so for the first time in a century, DM&IR was no longer associated with U.S. Steel. On October 20, 2003, Canadian National announced it would buy Great Lakes Transportation, which also owned Bessemer & Lake Erie, Pittsburgh & Conneaut Dock Co. in Ohio, and Great Lakes Fleet, Inc. The purchase was finalized on May 10, 2004, and the independent Missabe Road vanished.

CN retired all but 10 of the SD40-3's, most of the SD38's, and all the older rebuilt SD9's and 18's. Major locomotive work shifted from Proctor to other shops, and train dispatchers moved to Wisconsin, then Illinois. CN invested in new ore cars for the Missabe, gradually replacing those that dated to when the Yellowstones still ruled the railroad. DM&IR existed on paper until December 31, 2011, when CN merged subsidiaries DM&IR and Duluth, Winnipeg & Pacific into Wisconsin Central.

No longer do high-hood, maroon SD9's drag ore empties up Proctor Hill, their staccato sound echoing off the Duluth hills. But, powered by big black EMD's, most with red noses (a few in Illinois Central black), the ore trains still roll in the tradition of the Duluth, Missabe & Iron Range Railway. ■

Missabe fact file



(comparative figures are for 1938 and 2004)

Route-miles: 540; 206

Locomotives: 131; 42

Ore and freight cars: 13,783; 3,279

Passenger cars: 22; 0

Headquarters city: Duluth, Minn.

Special Interest Group: Missabe Railroad Historical Society, Inc., www.missabe.com

Recommended reading: *The Missabe Road*, by Frank A. King (Golden West Books, 1972, reprinted by the University of Minnesota Press, 2003); *Locomotives of the Duluth, Missabe & Iron Range*, by Frank A. King (Pacific Fast Mail, 1984); *Duluth, Missabe & Iron Range Railway In Color*, by David C. Schauer (Morning Sun Books, 2002); *Duluth, Missabe & Iron Range Railway*, by John Leopard (MBI Publishing, 2005).