

Yellowstone finale

Riding a Missabe 2-8-8-4 in command of 190 cars of iron ore—just before diesels took over

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PHOTOS BY THE AUTHOR



THE TIME WAS spring 1959, the start of what would prove to be the last season for steam on northern Minnesota's Mesabi Range. Growing ranks of diesel-electrics had been handling all the iron-ore traffic until the United Steelworkers began threatening a strike. Nervous big-steel companies began stockpiling ore and other commodities. Activity had picked up all the

way back to the mines, and it was time for the Duluth, Missabe & Iron Range to reactivate some of its stored steam power.

Thus I found myself, on assignment for *TRAINS* magazine, in the yard at Fraser, Minn., on the late afternoon of May 26. I had ridden Missabe M-4 class 2-8-8-4 Yellowstone No. 228, a 1943 Baldwin, up from Proctor Yard near Duluth earlier that afternoon as it hauled

a train of empties north. The crew had turned the locomotive, taken on coal and water, and backed 228 onto a southbound ore extra at 6:05 p.m. Behind the articulated's drawbar stretched 190 70-ton-capacity ore "jennies," which added up to a gross train weight approaching 18,000 tons.

The skies had been gray with overcast all day, but the sun emerged briefly to highlight the scene as the

big Yellowstone's smokebox-mounted air pumps hammered away at the job of pumping up the train line.

Getting 190 loads out of Fraser was going to be interesting. Engineer Ed App had a 0.8 percent grade facing him, complicated by wet rail from the day's intermittent rains. At 7:32 p.m., the air test completed, the CTC signal flashed green. App took slack, cut in his sanders, and eased



open the throttle. The M4 moved forward a few car-lengths . . . and quit. No go.

App heaved back the reverse lever and took slack again. This time, he made it. Steam enveloped the cab as App cleared the cylinder cocks, and the 2-8-8-4 began to pick up a speed. Its front engine erupted into furious motion as the drivers lost their grip on the wet rail on the switches. App eased off a little on his throttle, but

the front engine lost its footing again . . . and again. Fighting to keep moving, 228 hammered through Buhl at a slow walk. A small boy stood awe-struck on the station platform, committing to memory the unforgettable sight and sound.

Now it looked as if App and the 228 were losing the battle. Again and again the drivers slipped on wet rail, and seconds seemed to separate each blast from the

Menaced by an SD9, Missabe 2-8-8-4 No. 228 pumps up the air on its 190-car ore train before departing Fraser for Proctor.

stack as the heavy train pulled the locomotive to little better than a crawl. App, one foot propped in front of him to gain leverage, tried to find just the right throttle setting short of the point where the front engine went out from under him.

Grade crossing ahead! App made frantic motions to fireman John Shovein,

who reached for the whistle valve. The low moan from the boiler pressure was something less than 240 pounds. A Chevy pulled up short as the Yellowstone inched across the pavement. The driver surveyed the endless string of creeping ore cars in disgust and jerked his car around to look for another



Two men and their machine: Engineer Ed App, his left hand on the reverse lever and right hand on the whistle valve, rolls 200 empty ore cars north from Proctor. Later, fireman John Shovein checks his fire before leaving Fraser with the loaded train.

way across the track. He would've had a long wait.

Then suddenly, the battle was won. The hill began to level off, and gradually the exhaust cadence quickened. The grade tipped the other way, and App shoved in the throttle and started working the air to hold his train back.

Approaching Sherwood, a yellow-over-green signal indicated the plant was lined for the Keenan Cutoff. The red-over-yellow home signal swept by, and fireman Shovein leaned out in response to a flashing yellow order board to snare the 19 order that told us to run extra to Proctor. App flicked on his cab light, read the order, and passed it around the cab.

Extra 228 South had a

slight grade working in its favor on the cutoff, and the cab filled with smoke as App shut her off and drifted. The roar of the stack faded, replaced by the sharp hiss of air as pistons flashed back and forth in empty cylinders.

At 8:15, App sent superheated steam rushing into the cylinders again as his steed approached the junction at Keenan and lurched through the switches to the left-hand main, the usual DM&IR operating practice. The 2-8-8-4 then set a steady pace as she rolled off the miles of nearly level and tangent track, with the

Valve Pilot speed recorder showing a steady 27 to 28 mph (the limit for loaded ore cars was 30). If the 228 had had the devil's own time getting started, she was really rolling now.

Occasionally the cab filled with an orange glare and sudden heat as Shovein cracked the Butterfly doors to check his fire. Beyond the headlight's beam, the red lights of crossing gates would flash, and then the gates would drop into place, a flashing white light on the side indicating the flashers were working.

"All black," called head brakeman Ken Montgomery

as the Yellowstone leaned into a curve and he looked back over the train, checking for sticking brakes or hot journals. Ahead, a farmhouse stood out momentarily as the headlight beam swept around a curve.

Green interlocking signals and a clear order board led us through Alborn and Coleraine Junction. It was 9:05 p.m., and the Saginaw hill was just 10 minutes away. This was 4 miles of 0.3 percent grade between Burnett and Saginaw that constituted the line's ruling southbound grade. That may not seem like much, but it is when you try to make it with a boatload of iron ore.

Crackling lightning to the south had given way to more rain. Wet rail was going to make the hill just

Suddenly the battle was won. The hill leveled off and the exhaust quickened.



that much tougher. App had the tonnage rolling for all it was worth as the 2-8-8-4 charged through Burnett and stormed the grade.

Slowly the grade cut into the Yellowstone's speed. The exhaust that had been a continuous rush of sound became a series of separate and distinct reports, as the stack hurled soot and cinders into the sky. Steaming beautifully, the big locomotive never faltered as App laid a fine stream of sand on the wet rail from the sanders and adjusted the throttle and the reverse lever to get the last ounce of tractive force.

Wham! With a sound like a minor explosion, 228 slammed under the Highway 33 overpass. Smoke and steam swirled through the cab. Cinders pelted the cab roof as they rebounded from blast plates under the concrete bridge. It was just a little over a mile to the crest now.

Minutes later, the Saginaw depot loomed in the headlight beam, and the M-4 topped the grade with a few miles per hour of momentum to spare. Ed App eased off the throttle and looked distinctly relieved. From Munger to Proctor, Extra 228 rolled downgrade

Mission accomplished: App looks over the 228 after arrival at Proctor. Missabe's 18 2-8-8-4's were its last new steam power.

through what was now a fierce downpour. App closed the throttle and worked the air to hold the tonnage in check.

It was 10 p.m. sharp when Extra 228 ground to a stop short of the scale house at Proctor yard. A half hour later, the 2-8-8-4 moved across the scales at a steady 3 mph with half the extra's consist. A yard crew would complete the weighing. By 11:15, the job was done, the Yellowstone was in the roundhouse, and the crew was calling it a day. When

the scale house figures were totaled, Extra 228 had weighed in at 17,468 tons. Ed App, John Shovein, and their 2-8-8-4 had moved all that ore 68 miles in just two and a half hours.

On any railroad, Extra 228's run would represent a phenomenal performance, but for the Missabe's big 2-8-8-4's, it was the daily routine. Soon they would be gone from the Iron Range, but the experience of this Yellowstone finale was one that will stay with me forever. 📌