WHEN A FIRE CLOSED THE DENVER & SALT LAKE LINE UP THE FRONT RANGE OF THE ROCKIES,

REOPENING

FROM FEBRUARY 1944 TRAINS MAGAZINE

An eastbound D&RGW train eases through Tunnel 10 not long after it was reopened to traffic, culminating more than two months of expedited effort after the fire.

TUNNEL 10

By **Harry Hawes**

Photos by **R. B. "Bud" Hooper for D&RGW**

The skipper on the Denver–Craig local sensed something wasn't right, so he called in from a lineside phone. "Hello, dispatcher . . . this is Conductor Pierson – First No. 1, Engine 302. . . . We're at Quartz. Say, when we went through Tunnel 10 a few minutes ago, we smelled smoke, and it wasn't engine smoke . . .

It seemed like a different kind of smoke — maybe like some wood burning. . . . Yeah, I know Schneitman . . . you say he's got his B&B gang at Crescent? . . . That's at milepost 31.08 . . . 2 miles west of here. . . . OK . . . Yeah, I'll tell him to get down there pronto . . . just as soon as I hit Crescent. . . . He's got a pretty fast motor car — ought to make the 3½ miles to the tunnel in nothin' flat. . . . OK, you're welcome. . . . Thought I'd better play my hunch, be on the safe side, you know . . . OK, goodbye."

Back in the cab, J. A. Pierson told his

Plain, the first siding east of Tunnel 10 (a distance of 3 miles) became the headquarters for the men and equipment that repaired the burned-out bore. Perched on the edge of the Front Range, the location enjoys a sweeping view of the flatlands to the east.

On- and off-track equipment stands outside Tunnel 10's west portal during the early stages of the repair work. Most resources were brought in from the Denver end of the tunnel. Behind the photographer about 300 feet is Tunnel 11.

engineer, "All right, Vaughn, gun 'er — dispatcher wants us to meet Schneitman's B&B outfit at Crescent and get him down to Tunnel 10 as soon as possible."

It was 11:40 a.m. Monday, September 20, 1943. Engineer A. E. Vaughn started highballing his three-car passenger train up the 2-percent grade — and he was really gunning his 36-year-old Ten-Wheeler.

Back in Denver, there was commotion in the office of J. B. Culbertson, chief dispatcher of the Denver & Salt Lake Railway. A trick dispatcher, F. D. Stephenson, who covers the east end of the D&SL, where Tunnel 10 is located, dashed across the hall to the office of A. L. Johnson, veteran of 26 years with the D&SL, including the past 17 as general superintendent. Johnson was about to leave for lunch when the dispatcher advised him of the reported smoke in Tunnel 10.

"Guess I'd better stick around a while 'til we hear from that B&B gang," he said. "Flash me as soon as you hear, will you?"

At 12:20 p.m., Johnson's phone rang:

"Mr. Johnson, this is Burt Schneitman at Quartz. . . . Tunnel 10 is blazing like fury! . . . Yes, sir. . . . And there's two engines with fire hoses at Crescent. . . . Yes, sir . . . right away!"

Johnson let loose with a barrage of orders to the dispatchers: "Stop all trains in the vicinity of Tunnel 10 and turn them back! . . . Get every man available to the fire! . . . Get all the water cars you can from east and west!"

Thus began what was to be the greatest traffic emergency in the history of the D&SL, as well as of the Denver & Rio Grande Western, which uses the 128-mile stretch of D&SL line between Denver and Orestod for operation of through trains between Denver and Salt Lake City.

The joint line, from Denver to Bond (a mile west of Orestod), carries a volume of traffic that is among the heaviest of any comparable area in the West. With heavy war freight, the job of avoiding delays in the emergency was monumental.

Feeble first efforts

Fanned from portal to portal of the 1,570-foot tunnel by terrific drafts, the flames, of unknown origin, leaped from section to section of the 1,129 feet of 12x12 timbers. They soon created an inferno that made the first effort of fire fighters feeble, indeed.

Johnson learned from the dispatcher that two engines were at Crescent; one had brought a work extra there, the other had arrived light. Knowing that all D&SL engines are equipped with a fire hose as precaution against forest fires, he ordered both engines to hasten to the tunnel and lend what assistance they could until further help arrived.

A Rio Grande GE 44-ton diesel shuttled equipment into and out of the tunnel. This view is east of the bore, where special tracks were built to accommodate outfit cars for workers.

Men are busy shoveling gravel as cars filled with material arrive at Tunnel 10's west portal. Workers from a nearby water tunnel construction project assisted railroad crews.

Workers erected a steel arch framework at the western entrance to the fire-damaged 1,570-foot tunnel.

Bulldozers "mucked out" tons of loose rock in the burned portion of the tunnel. Note the rock that was charred by the tremendous heat in the crown of the bore.

The fire came at the height of D&SL's sheep-movement season, so the railroad arranged for 31 trucks to carry the animals from special pens at Rollinsville to stockyards in Denver.

Meanwhile, Johnson contacted storekeeper William Chappel at Utah Junction, near Denver, and within two hours Chappel had assembled and delivered a trainload of needed lumber and a relief train.

Immediately upon word of the severity of the fire, Johnson and the dispatchers had a stream of men en route to the tunnel together with water cars, fire hoses, and other equipment, much of which was assembled by the Rio Grande.

The emergency threw a wrench into the day's traffic machinery. West of the tunnel were D&SL train 2, the daily passenger local from Craig, which had to be turned back at Pinecliff ("Cliff" on the railroad); two long Rio Grande freights, which were turned back for detour over D&RGW's Royal Gorge Route to Denver; and two light engines. Rio Grande train 6, the *Exposition Flyer* from California was ordered detoured via the Gorge before it reached Bond.

A long D&SL stock train was turned back from Pinecliff to Orestod and transferred to the Rio Grande for detour via the Royal Gorge to Denver.

On the east side of the tunnel were two D&SL military specials, which were quickly sent back to Denver for rerouting over the Rio Grande; two freight extras; and eight other trains to be detoured.

Because of the sudden rush of traffic on the gateway, one group of enginemen received orders to hasten from Bond to Pueblo, and boarded a night passenger train for the trip. With no available seats in the Pullman or coaches, they crowded into the baggage car and sat on everything from bird cages to egg crates.

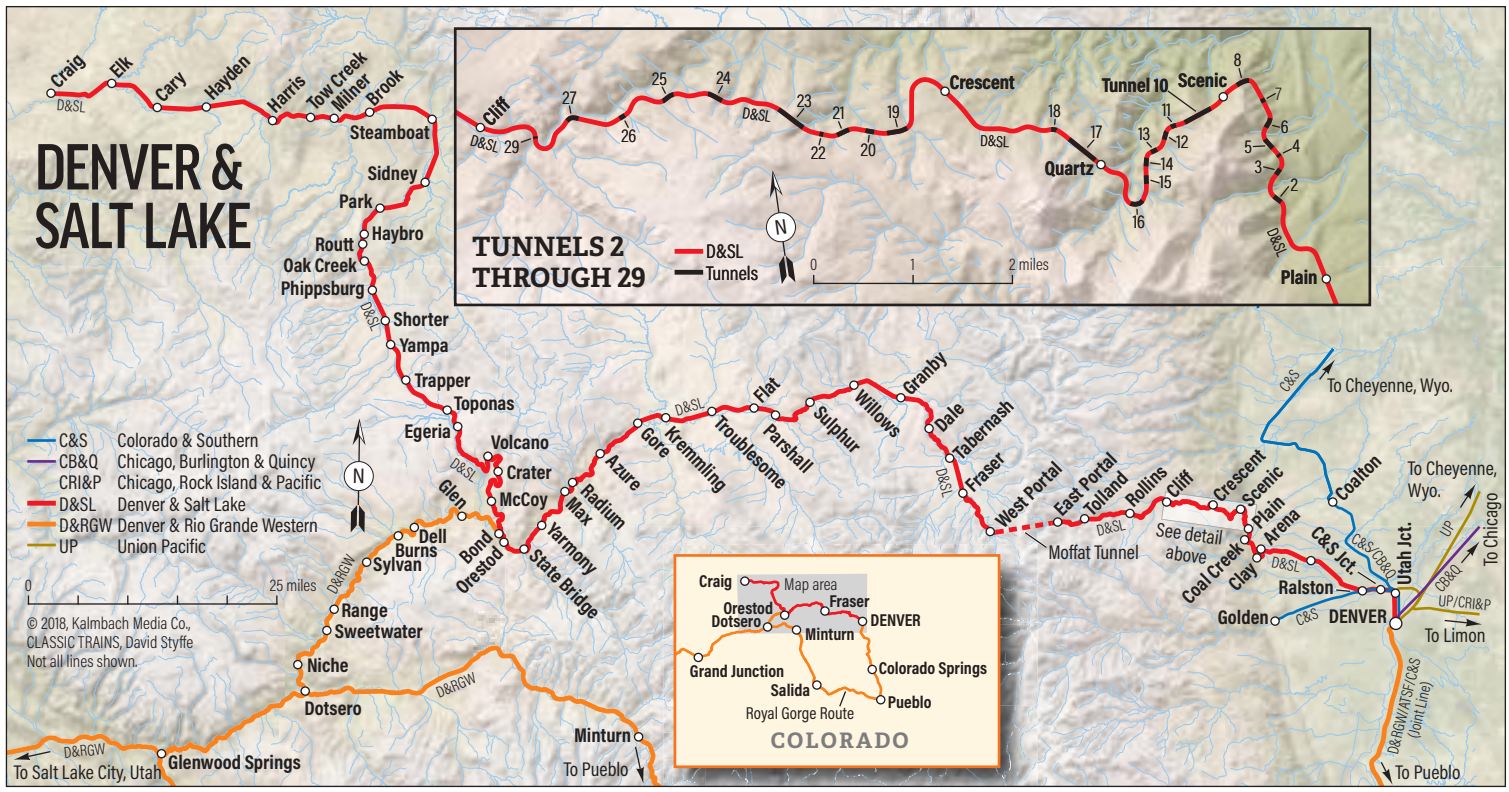
Speculation as to when the fire could be extinguished and the tunnel reopened ranged from a few hours to several weeks as the train and engine crews swarmed about the eating houses at Bond that night. No one realized the magnitude of the task ahead — or that it would require nearly 2½ months to restore normal operations.

175-mile detour

From the afternoon of September 20 until the afternoon of December 1, the D&SL operated its trains only between Pinecliff and Craig, and Rio Grande trains used the Royal Gorge as a detour. It meant that every train that normally uses the famous Moffat Tunnel and Dotsero Cutoff to Salt Lake City had to detour over the route via Pueblo and Salida — 175 miles longer.

To the D&RGW, it meant the greatest rush ever experienced in the Pueblo yards, as well as at many other points on the Royal Gorge Route. The fire came as traffic over both the D&SL and Rio Grande was approaching its seasonal peak. Furthermore, both roads were hard-pressed for the type of workers necessary to restore Tunnel 10.

Reflecting the sudden traffic jump



With the concrete lining in place, but some wood framing and rock yet to be removed, track crews spike down new steel inside the tunnel. Thousands of miles from the front lines, these men are doing their part for the war effort.

Concrete mixers mounted on improvised platforms (above) provided material for the tunnel's new lining. Portable generators (below) supplied electricity for the mixers and other equipment.

through the Pueblo gateway, a total of 18,184 cars were successfully handled there through the joint Rio Grande-Missouri Pacific yards within six days after the detouring of traffic, compared with 12,741 during the six days just prior to the detour. This was an increase of 32 percent, all handled by the same number of employees, switch engines, and other facilities as were in service there before the fire.

Notably at Pueblo, Canon City, Salida, Tennessee Pass, and Minturn, Rio Grande employees worked long hours, often around the clock, to keep traffic moving until relief workers could be dispatched to their aid. Numerous D&SL employees were sent to the rescue in handling the Rio Grande problems at many points.

The fire raged out of control for several days despite locomotives and a Denver Fire Department pumper pouring water into both portals. Firemen were further handicapped by heat within the tunnel, heat so intense that rock was reduced to molten lava and slag. Workmen were compelled to fight the blaze in 10-minute shifts day and night, because of the blistering temperature of the tunnel's rock walls.

The blaze turns deadly

Another problem was that of carbon monoxide gas caused by the burning timbers. Workers were issued gas masks during the early stages of the fire. Despite precautions, three city firemen died from asphyxiation when they ventured too far into the tunnel.

By the afternoon of the second day, the fire was confined to a timbered section about 275 feet inside the east portal, and the area was found to be one-third full of debris, including rocks that fell when the timbers burned away.

Quick action by D&SL President Wilson McCarthy, Vice-President E. A. West, and Chief Engineer A. E. Perlman in obtaining outside manpower and equipment enabled the repair job to get into full swing the day after the fire.

"We knew we would have to procure more trained tunnel workers and that such workers were employed on the Big Thompson Water Diversion tunnel not far from the scene of the fire," said McCarthy.

"We stated our case to L. A. West, regional head of the War Manpower Commission; to S. O. Harper, chief engineer of the U. S. Reclamation Bureau, and his assistant, Walker Young; and to John Austin, general superintendent of the Lewis J. Stiers Construction Co., which is under contract to build the western end of the Big Thompson project. All were anxious to cooperate, and next morning the veteran tunnel builder, John Austin, was on the job with 100 men. The importance of this graciousness and the patriotic spirit that


1148

Business as usual: An eastbound Denver & Salt Lake freight enters Moffat Tunnel with 2-6-6-0s fore and aft. The Denver & Rio Grande Western absorbed the "Moffat Road" in 1947.
Forest Crossen

Rio Grande 2-8-0 No. 1146 helps 2-8-8-2 No. 3406 lift 27 cars upgrade between Tunnels 16 and 17 in July 1938. Just over five years later, a fire in Tunnel 10 would shut down this vital line.
Henry R. Griffiths Jr., Jim Griffiths coll.

prompted it cannot be minimized. With this large force of additional workers, the time required to restore the tunnel was greatly shortened."

Special types of generators, mucking machines, and heavy equipment were obtained from various construction firms, mines, and municipalities in Colorado, Utah, Idaho, and New Mexico. A number of independent heavy contractors furnished special equipment, and some of it came from southern states.

A giant diesel generator arrived in a few days to furnish adequate light and power for the extensive job. A carload of air pipe to provide better ventilation for workers and other needs arrived a few days later.

In addition to all B&B-outfit cars available on the D&SL system, a total of 24 were delivered to the vicinity of the tunnel by the Rio Grande to accommodate the three shifts of workers.

Sheep season

The biggest traffic problem created by the emergency was the arrival of the peak of the autumn sheep-marketing season in D&SL territory. The railroad built temporary loading pens along the right of way at Rollinsville in order to effect the transfer of sheep from stock cars to double-deck trucks for the remainder of the trip to Denver. The pens were sufficient to handle as many as 8,500 sheep every 24 hours, and a fleet of 31 trucks, rounded up from all sections of Colorado by Rio Grande Motorway, a subsidiary of the D&RGW, averaged two round trips each daily over the 54-mile Boulder Canyon Highway from Rollinsville to the Denver Union Stockyards.

Despite this handicap, a total of 110,130 sheep and lambs billed via D&SL were delivered to market between September 28 and October 17.

It was not until November 3 that a "pioneer bore" was pushed through the slide area of the tunnel to permit circulation of air and the movement of men and materials back and forth from portal to portal. The following day, workmen started erecting the first steel framework needed for support. Two days later a material track-spur was in operation, and on November 12 carpenters began building forms for the concrete lining. All of the tunnel, except approximately 600 feet of solid rock bore, was to be concrete-lined, similar to the lining of the 6-mile-long Moffat Tunnel.

At 4:53 p.m. December 1, Denver & Salt Lake passenger train No. 1 passed through the rebuilt tunnel, and traffic of both roads quickly returned to normal. The important route was back in business.