



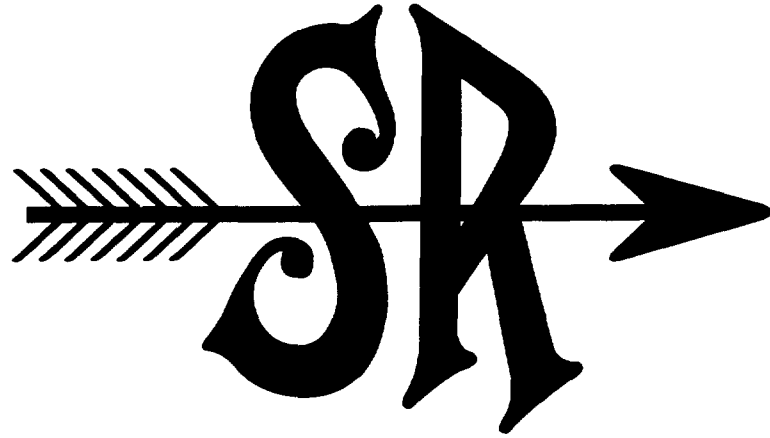
PLAINTIFF'S EXHIBIT

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Southern Railway's Spencer Shops

1896-1996





**Southern Railway's
Spencer Shops**
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*by
Duane Galloway and Jim Wrinn*



1996

TLC Publishing, Inc.
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Front Cover Illustration:

In this painting specially commissioned for this book, Andrew Harmantas shows Southern Railway Mountain-type locomotive No. 1480 riding the turntable in front of the Bob Julian Roundhouse on a fine day in the 1940s. In the rear at left, Spencer Shops' own creation, streamlined No.1380 for *The Tennessean*, waits its turn while an Asheville-bound Santa Fe-type, right, peers from the roundhouse.

Back Cover Illustration: These two postcard views show the Spencer Shops complex in the 1930's when repairing and running steam locomotives was the main reason for this railroad center's existence.

Bottom: The cavernous Spencer Shops back shop in a early 1900's view shows the scores of tools and machines that were needed by the hundreds of men to keep the Southern Railway's steam locomotives going.

Endsheets This wonderful view from 1938 was featured in a *Life* magazine article on the Southern Railway centering around Spencer. *Time-Life*

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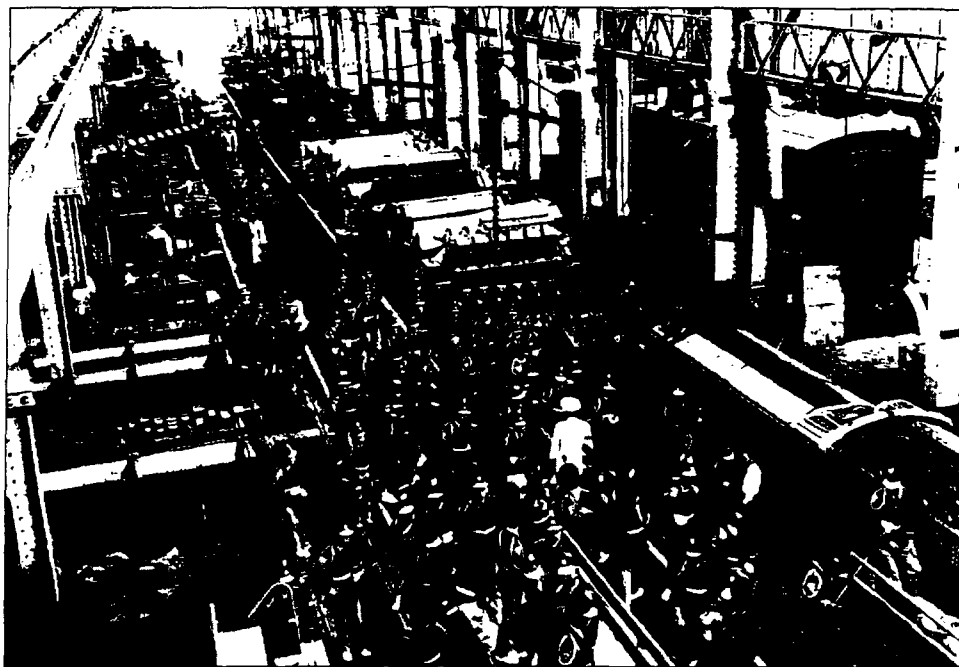


Marvin Rogers collection
Locomotives rest in various states of disassembly during overhaul in the back shop.

an entire region. Diesels based at Spencer might go all the way to Washington or Atlanta and back before a maintenance check. Some passenger locomotives ran over portions of two or even all three of Southern's operating regions as part of their regular routes.

Perhaps the greatest changes of the diesel era were reserved for Southern's shop system. At the peak of steam in the 1930s and early 1940s Southern had six heavy repair shops (including Spencer), eight light repair shops, and 19 roundhouses for running repairs. Spencer, heavy repair center for the eastern lines, was supplemented by smaller shops at Columbia and Alexandria. When diesels arrived, they required a completely different type of repair and much less of it. With relatively few diesels on the job, traveling previously unthinkable distances between repairs, the need to reduce shop forces became acute. Due to conversion of the back shop and other buildings, Spencer remained a heavy repair center. The only other shops for heavy repairs and overhaul by 1953 were the Pegram Shops in Atlanta. The Knoxville, Chattanooga, and Birmingham shops, heavy repair facilities in the steam era, were relegated to inspections and periodic maintenance. Thirteen other sites across the system could perform inspections and light maintenance if necessary. One of these was a small rectangular complex built in Alexandria in 1945 specifically for diesels. It was a prototype of the diesel shop designed for Spencer in 1947 but never built. A new shop designed for diesel repair did open at Chattanooga, an ominous sign for Spencer workers, though few recognized it at the time.

As one of two remaining heavy repair shops on the Southern system, it appeared Spencer Shops had a secure future. The diesels had brought great changes, but most shopmen understood the need for change. The greater strength and efficiency of diesels allowed major railroads like Southern to keep their heads above water in the furious battle against



North Carolina Division of Archives and History

In 1953 a local high school visited Spencer for the Rowan County bicentennial. The back shop had been converted for diesel repair. Diesel engines and bodies filled the giant building where steam had once been supreme.

trucks and pipelines for the nation's freight traffic. Spencer shopmen were famous throughout the Southern system for their ingenuity and occasional miracles with wrecked and problem locomotives. They could adapt to a revolution in shop work, if anyone could. The shopmen were glad to have survived the first wave of the diesel revolution, but the more perceptive among them warned that the most far-reaching changes lay in the future.

Locomotive Repair in the Diesel Era— an Overview

The durable diesels were not taken to the roundhouse or back shop after each run. Most, however, were taken to the inspection pits via the roundhouse lead just like steam locomotives. If inspectors found no problems and the locomotive was not scheduled for periodic maintenance, it was simply fueled and sanded and taken by a hostler to the ready tracks for another run.

If the inspectors or crew found a problem or further inspection was required, the locomotive was put into one of the eight stalls of the round-

house converted for diesel repair. Passenger locomotives had a quick bath at the wash track before entering the building.

Inspection and repair on diesels differed radically from that on steam engines. Craftsmen joked that on a steam locomotive it took six minutes to find a problem and six hours to fix it, while on a diesel it took six hours to find a problem and six minutes to fix it. Craftsmen examined noises, discharges, and other signs to determine which component of a complex diesel was defective. Electricians sometimes pored over miles of wiring for many minutes to locate a simple short or faulty connection. Once found, a problem was often within a part which could simply be replaced with a new one kept on hand at the site. When it was more cost effective to fix the part, equipment in the small machine shop enabled shopmen to manipulate metal or re-bore cylinders just as they had with steam locomotives.

On inspections, craftsmen examined the seemingly endless parts inside the locomotive's body. They followed air, water, fuel, and oil lines searching for problems and checked filters which purified the same substances. Dirty oil and fuel filters were removed for cleaning, as were batter-