

Introduction

The booming growth of industry in the first half of the 20th Century saw the railroads of the United States continuously scramble for more modern, powerful, and efficient technology to cover and improve the demanding schedules of the railroad system. Among these railroads was the Alton and Southern Railroad of East St. Louis.

The Alton and Southern Railroad (A&S) dates back to the early part of the 20th century, and has its origins deeply rooted in the Aluminum Company of East St. Louis, an aluminum producer that was owned by the Aluminum Company of America (ALCOA). At that time, the Aluminum Company of East St. Louis operated a flourishing production plant in Alorton, Illinois, and relied heavily upon the Southern Railway to provide the coal and bauxite ore needed for production. As the plant grew, the Southern Railway's service began to slip, and by 1910 the Aluminum Company of East St. Louis had become so dissatisfied with the Southern's service they had decided to build their own railroad to transport the needed material. On June 28th of 1910, they created the Alton and Southern Railroad Company, and built their first trackage from the Southern Railway at Alorton eastward to the St. Louis and Belleville Electric line in East St. Louis. This link bypassed the Southern Railway, allowing them to operate an intergrade without having to work with the Southern.

The line was a success, and on November 23rd of 1910 the Aluminum Company of East St. Louis contracted with the ALCOA-owned Denverside Connecting Railway Company (DCR) to construct and operate a new railroad between the company's plant and two points; the Illinois Central line at Valley Junction and the East Bank of the Mississippi river¹. This new line allowed the railroad to access and service river barge traffic. However, the charter for the DCR had only allowed it to build as far as the previously outlined terminals. If the Aluminum Company of East St. Louis wanted to further expand their rail lines and services, they would have to create yet another rail company. On November 1st, 1911 they did just that when the Alton and Southern Railway was incorporated². The A&S Railway was intended to operate a northward expansion of the A&S Railroad line between their property on the bank of the Mississippi and the St. Louis and O'Fallon railroad.

¹ This point is now known as Fox Terminal Wharf, and is still a major operation for the A&S.

² The A&S Railway is not to be confused with the A&S Railroad, which was created the year prior.

Both the aluminum plant and railroad assets of the Aluminum Company of East St. Louis continued to grow in size and success as the decade wore on. The company's plans for their growth became bigger and bigger, and pushed for more expansion in 1913. In August of that year, the company consolidated all three of their rail lines into one company- the Alton and Southern Railroad. The railroad quickly established a line into Madison County, before being forced to cease further expansion with the onset of World War I. The A&S was nationalised along with all other railroads through the United States Railroad Administration for the duration of the war. When the war ended and the USRA was dissolved in early 1920's, the A&S Railroad continued to grow their short line and transfer empire across the east side of the Mississippi. In 1924, a two mile line was constructed northward, connecting the railroad with factories in Granite City, Illinois.

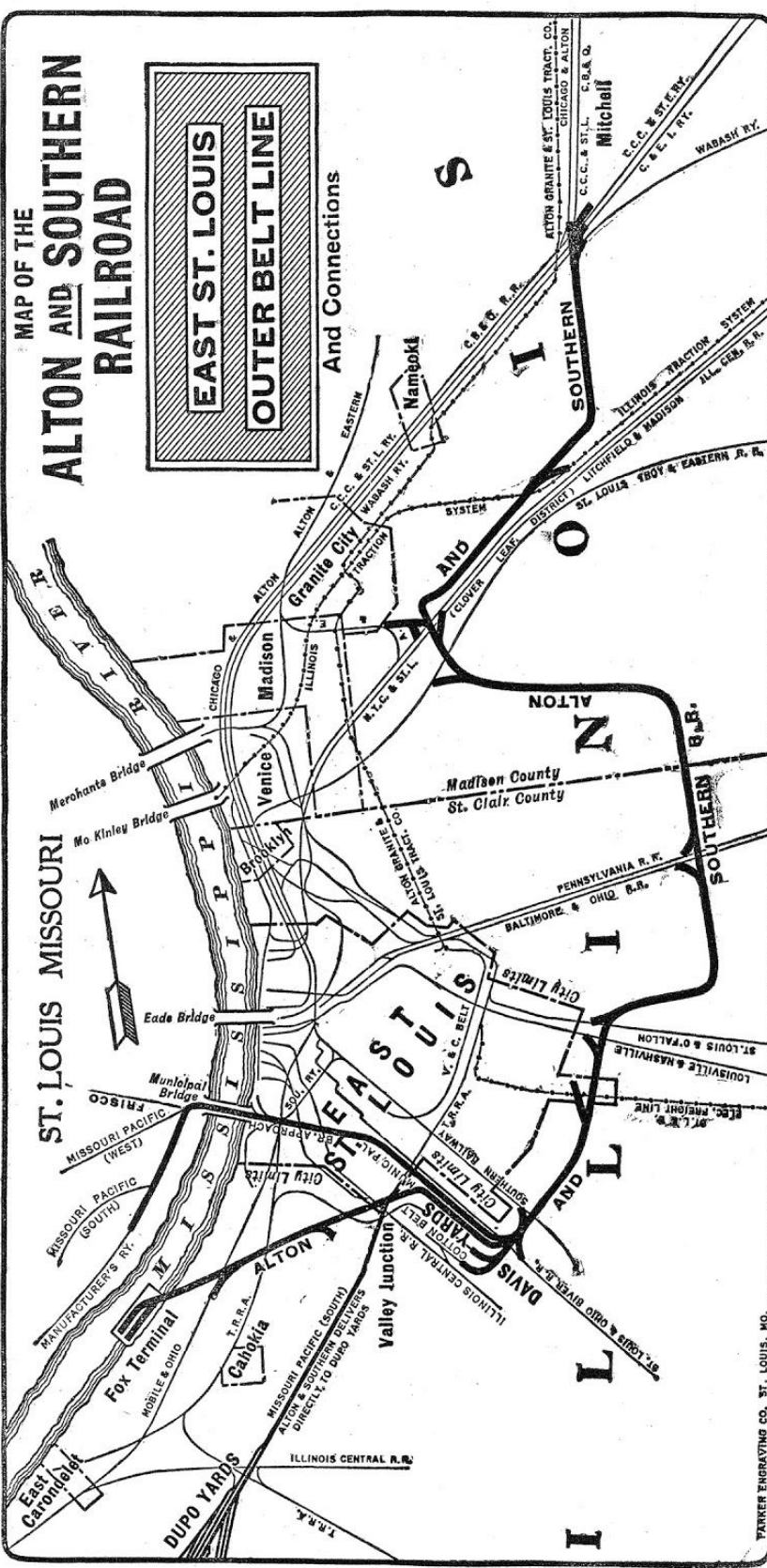
Interestingly, the A&S did not own any major engine servicing facilities until 1924, when they leased a portion of the St. Louis and Ohio River Railroad, which was owned by ALCOA. With the lease of the StL&OR the A&S gained better access to many needed assets, including coal, sand, and water towers, a backshop, an engine house, and storage facilities, all of which were located in East St. Louis. This acquisition allowed the A&S to support and service their own railroad fleet. In 1925, the A&S made its final expansion when they constructed a four mile line northward to Mitchell, Illinois, where they created connections with several new railroads, including the Wabash, Chicago and Eastern Illinois, the CCC&StL (The Big Four), and the Chicago and Alton. In 1942, the A&S and StL&OR jointly had a new engine house built. Once the A&S completed its trackage in 1925, they turned their focus on the efficiency and modernization of their motive power and assets. Since the A&S was owned by a major aluminum producer, the railroad would at times be used to show the usefulness of aluminum in various applications.

Eventually, the A&S would also gain access to downtown St. Louis when the Municipal Bridge opened to rail traffic in 1928. The bridge was constructed to break the monopoly the Terminal Railroad Association of St. Louis held, as they owned almost all other bridges that crossed the Mississippi river into St. Louis. Breaking this monopoly meant the A&S could better compete with their biggest rival- the Terminal Railroad- and also allowed them to offer switching runs and services in downtown St. Louis. This made the A&S a truly complete St. Louis and Missouri/Illinois railroad. The bridge would later be renamed the "MacArthur Bridge" during WWII, and still carries rail traffic to this day, although it is now completely owned by the Terminal Railroad.

ALTON AND SOUTHERN RAILROAD

Mileage in operation, 31.

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R. DURLBY, Vice-President, Maintenance and Operation, East St. Louis, Ill. **J. G. MARTIN**, Commercial Agent, East St. Louis, Mo. **E. M. WAGNER**, Fmt. Traffic Rep., Pittsburgh, Pa.
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 Alton R.R. East St. Louis & Suburban Ry.
 Chicago & St. L. R.R. (Big Four) Illinois Central R.R.
 Chicago & Eastern Illinois R.R. Illinois Terminal R.R. System.
DESIRABLE LOCATIONS FOR MANUFACTURING PLANTS. SUPERIOR SWITCHING FACILITIES. Route your freight ALTON AND SOUTHERN R.R. (East St. Louis Outer Belt Line) and avoid all interchange delays. Our fast train service assures quick handling. **DOCK FACILITIES ON THE MISSISSIPPI RIVER AT FOX TERMINAL.** Further information upon application.

Ad showing the completed trackage routes of the Alton and Southern and the interchanges they made with other railroads and industries. In total, the A&S operated 31 miles of Right-of-Way, not including spurs and yards.

And so became one of the most successful St. Louis transfer railroads. The A&S would later begin calling itself “the Speed Belt” or “the Outer Belt” when advertising expedited switching and transfer services in competition with the Terminal. While the trackage was complete, the story of the Alton and Southern Railroad was far from over.

-Early Locomotives-

A&S No. 1-3 and 8

Records showing the early motive power for the A&S are few and far between, however the first two locomotives used by the railroad were second hand 0-6-0's built by the American Locomotive Company (ALCO) Cooke works, and acquired by either the A&S Railroad or the A&S Railway sometime after the roads were incorporated. Assigned No. 1 and No. 2, these locomotives provided the earliest power for the three rail companies owned by the Aluminum Company of East St. Louis. No. 1 had been bought from the Pittsburg Reduction Company in early 1911. It had been originally been built by the ALCO Cooke works in April of 1907 as the P.R. Company No. 1.

Alton and Southern No. 2 was acquired in July of 1913, also from the Pittsburg Reduction Company, where it had been their No. 2. This locomotive was almost identical to A&S No. 1, except that it was slightly smaller. This 0-6-0 was used by the A&S until the early 1920's.

Before coming to the A&S, No. 3 had been ALCOA's No. 2. It was a 1913 ALCO-built 0-6-0 with 50 inch drivers and was last reported in operation with the A&S in June of 1919. Sometime after, it was replaced by another 0-6-0 from the Manufacturers Railway, who had bought it new from Lima in December of 1910. This second No. 3 would end up as Bauxite and Northern No. 3204 by February of 1947, likely after having been passed around several other ALCOA-owned railroads. This locomotive would operate with the B&N out of Bauxite, Arkansas until it was scrapped in the late 1940's.

No records have been found for A&S No. 4 or 5. It is unknown whether the A&S ever used these numbers, and is possible that if these locomotives existed, they were wholly owned by ALCOA, who may have transferred them to another railroad or plant before they were ever used for the A&S. Nothing is certain however.

The next locomotive in the "Early Power" for the Alton and Southern was No. 8. This engine was truly an oddball for the railroad. Originally built by the Baldwin Locomotive Works in December of 1910, the 2-6-6-2 compound locomotive was the only articulate ever used by the A&S. They had purchased it from the Portland and Southwestern, a logging railroad in Oregon. After its time on the P&SW as No. 2, the A&S bought the locomotive in 1918 to assist with more traffic that came that year as the war effort intensified.

Table of Data for Early A&S Locomotives

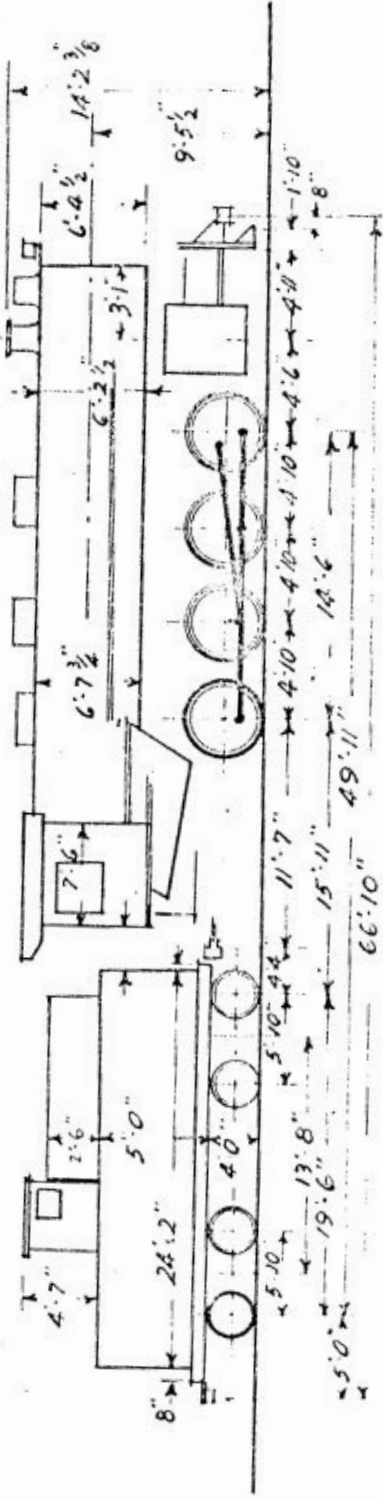
Road No.	Type	Builder	C.N.	Build Date	Driver Dia.	Loco. Weight	Cylinder Dim.	A&S Acquisition Date
1	0-6-0	ALCO-Cooke	41349	April 1907	50 in.	71.5 tons	20x26 in.	1911
2	0-6-0	ALCO-Cooke	42947	Unknown	50 in.	70 tons	20x26 in.	July 1913
1st 3	0-6-0	ALCO-Schen.	61570	July 1913	50 in.	71.5 tons	20x26 in.	1914 or 1915
2nd 3	0-6-0	Lima	54200	December 1910	51 in.	71.5 tons	20x26 in.	Early 1920's
8	2-6-6-2	Baldwin	35785	December 1910	51 in.	116 tons	18.5x28 in. and 28x28	1918

Standing on a 42 foot wheelbase and 51 inch drivers, No. 8 was the largest ever used on the A&S at the time. It was also equipped with a "separable boiler", a type of boiler that some compound locomotives were equipped with, as they were thought to be more efficient at the time. The boiler had extremely short tubes (In No. 8's case, only 13 feet) to make room for a long reheating chamber. This chamber was used to reheat steam that had been exhausted from the locomotive's rear, high pressure cylinders before being fed into the forward, low pressure cylinders. It was an early and ultimately unsuccessful incarnation of superheating. Within only a few years, most of these boilers were replaced by more conventional types, as they were found to frequently clog in the reheating chamber and restrict the locomotive's draft. No. 8 carried its separable boiler through its entire life, however. The A&S used No. 8 through the 1920's but scrapped it in the early to mid 1930's when it was no longer needed and became unbearable to maintain.

-Switching Locomotives-
The Backbone of the Railroad
A&S No. 6, 7, 9, 12, and 14

ENGINE NOS. 6, 7.

CLASS O-E-O



1ST DRIVER	50,000	NO. OF ENGINES	2	YR. BUILT	6-1916	7-1917
2ND DRIVER	50,000	BOILER PRESSURE, LBS.	190	BUILDER	AMERICAN	
3RD DRIVER	52,000	TRACTIVE POWER, LBS.	43,700	FACTOR OF ADHESION	4.4	
4TH DRIVER	50,000	TR. POWER BOOSTER	NONE	VALVE TRAVEL	6	
5TH DRIVER		CYLINDERS	22 x 28	GRATE AREA, SQ. FT.	47.5	
TOTAL ON DRIVERS	202,000	FIREBOX	96" x 71 1/2"	VALVES	12" Piston	
ENGINE TRUCK		VALVE GEAR	Walschaert	SUPERHEATER	Super Heat Co. A	
TRAILER TRUCK		STOKER	NONE	THERMIC SYPHONS	NONE	
TOTAL OF ENGINE	202,000	DIAM. OF WHEELS	DRIVERS 50"	TRAILER TR.	50"	ENGINE TR.
TENDER, LIGHT	55,670	HEATING SURFACE, SQ. FT.				
TENDER, LOADED	134,000	FIREBOX	167	NO. O. DIA.	33"	LGTH.
ENGINE & TENDER	336,000	ARCH. TUBES	22			
MAIN DRIVERS	10' x 12"	FLUES	687			
OTHER DRIVERS	10' x 12"	TUBES	1685			
ENGINE TRUCK		TOTAL	2561			
TRAILER TRUCK		SUPERHEATING	565			
TENDER TRUCKS	5 1/2' x 10"	TOTAL FOUR	4409			
COAL CAPACITY OF TENDER, TONS	10					
WATER CAPACITY OF TENDER, GALS.	7000					
		WITHOUT SYPHONS	167			
		WITH SYPHONS	22			
			687			
			1685			
			2561			
			565			
			4409			

ALTON AND SOUTHERN RAILROAD

Diagram of A&S No. Six and Seven, from "Alton & Southern Data of Motive Power", provided by the Rail Data Exchange.

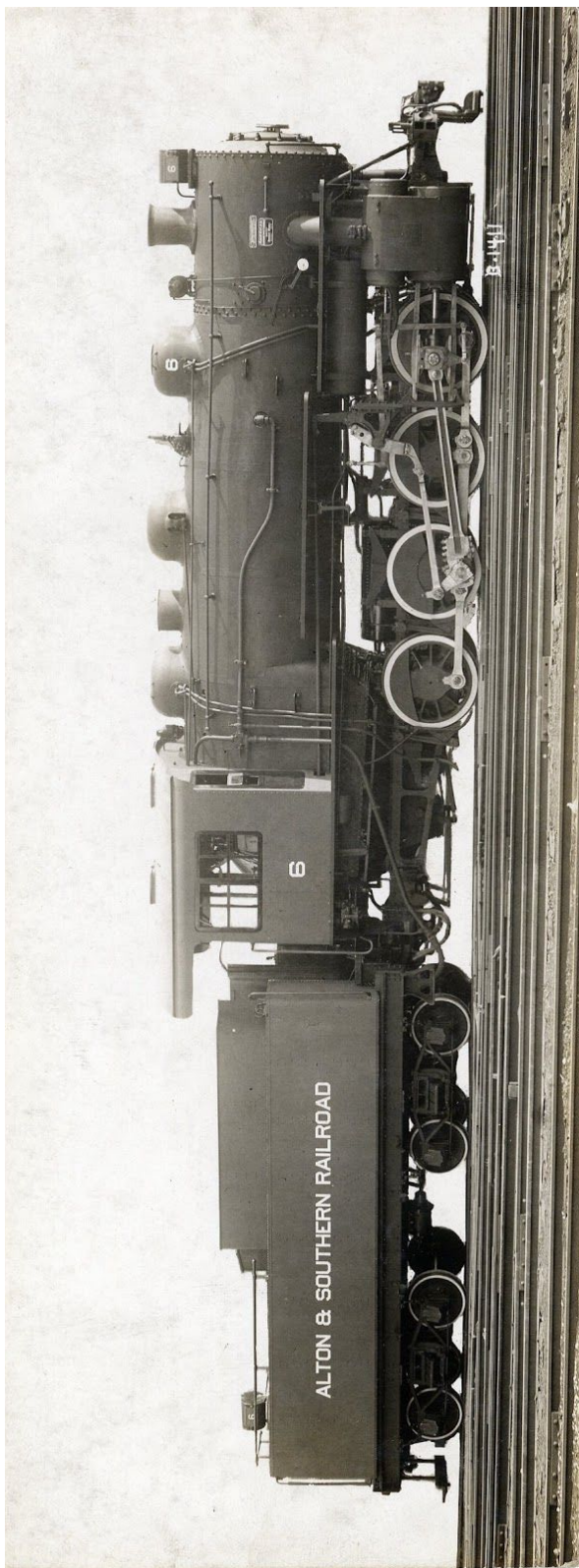
It could be argued that the A&S fleet was best known for its switchers. Often thought of as small, old, and dirty, they were not so. The A&S knew these engines were key to providing expedited services to customers, and invested in having the most modern, reliable, and clean switchers. Without these often overlooked locomotives, railroad yards -the anchor of rail traffic- would come to a standstill. These engines had the most important and thankless tasks, and on the A&S, they got them done.

When out shopped by the ALCO Brooks works in August of 1916, No. 6 was the first locomotive bought new for the A&S. No. 6 was one of the earliest modern 0-8-0 switchers built, and the design would later inspire the USRA standardized 0-8-0, which would be one of the most widely produced switching locomotives in the country. No. 6 was in service with the A&S to the last days of steam, despite it being the oldest locomotive on the roster by the start of World War II.

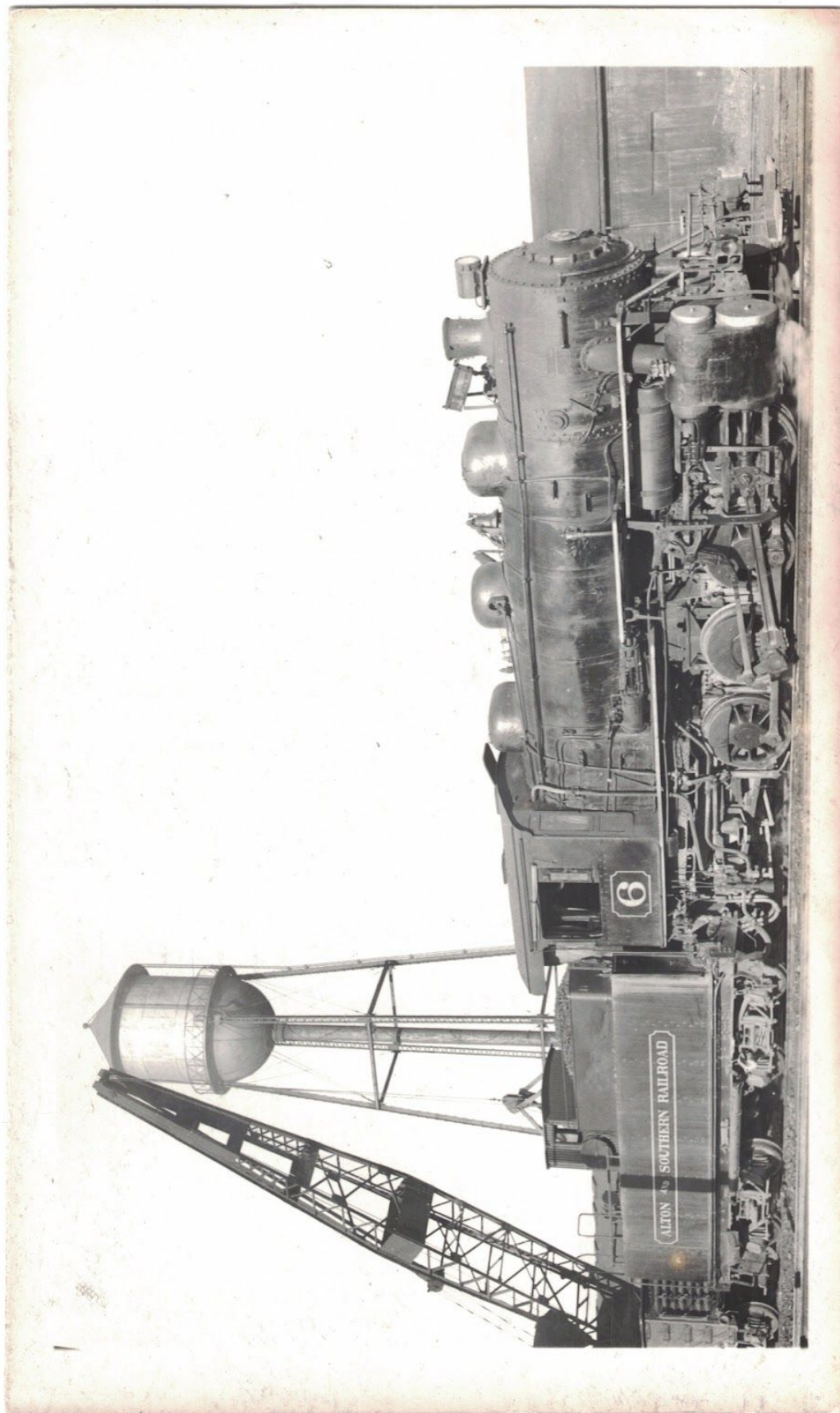
Alton and Southern No. 7 was a copy of No. 6, and was ordered by the A&S in December of 1917 to help with the greater amounts of rail traffic that came as a result of the United States' entrance into World War I.

It is interesting to note the somewhat unusual arrangement of having a dome throttle on a superheated locomotive, as was the case with No. 6 and 7. Such an arrangement meant that when the throttle was closed, the superheater elements would be without steam, which in some situations could cause the elements to overheat quickly, and in extreme cases even burn and distort. This arrangement was more commonly found overseas in England and Europe, however in the US, a front-end throttle on the 'downstream' end of the superheater elements quickly became standard as the superheating of locomotives became almost universal in the early 1920's.

As No. 6 and 7 were the first locomotives ordered new and built specifically for the A&S, they shared many common traits that would become unique to the small transfer railroad. The A&S always kept the base color of their engines a proper black, but gave the locomotives their own distinguished features in lettering styles and appropriate application of white and silver.



No. 6 was the first brand-new locomotive bought by the A&S when it rolled out of the ALCO Brooks Works. It is shown here prior to leaving the plant in August of 1916. Image courtesy of the National Museum of Transportation archives.



The A&S was not well known for having great headlights, as can be seen by the unusually small one mounted on A&S No. 6 sometime in the 1930's. Image from the collection of David Huelsing.

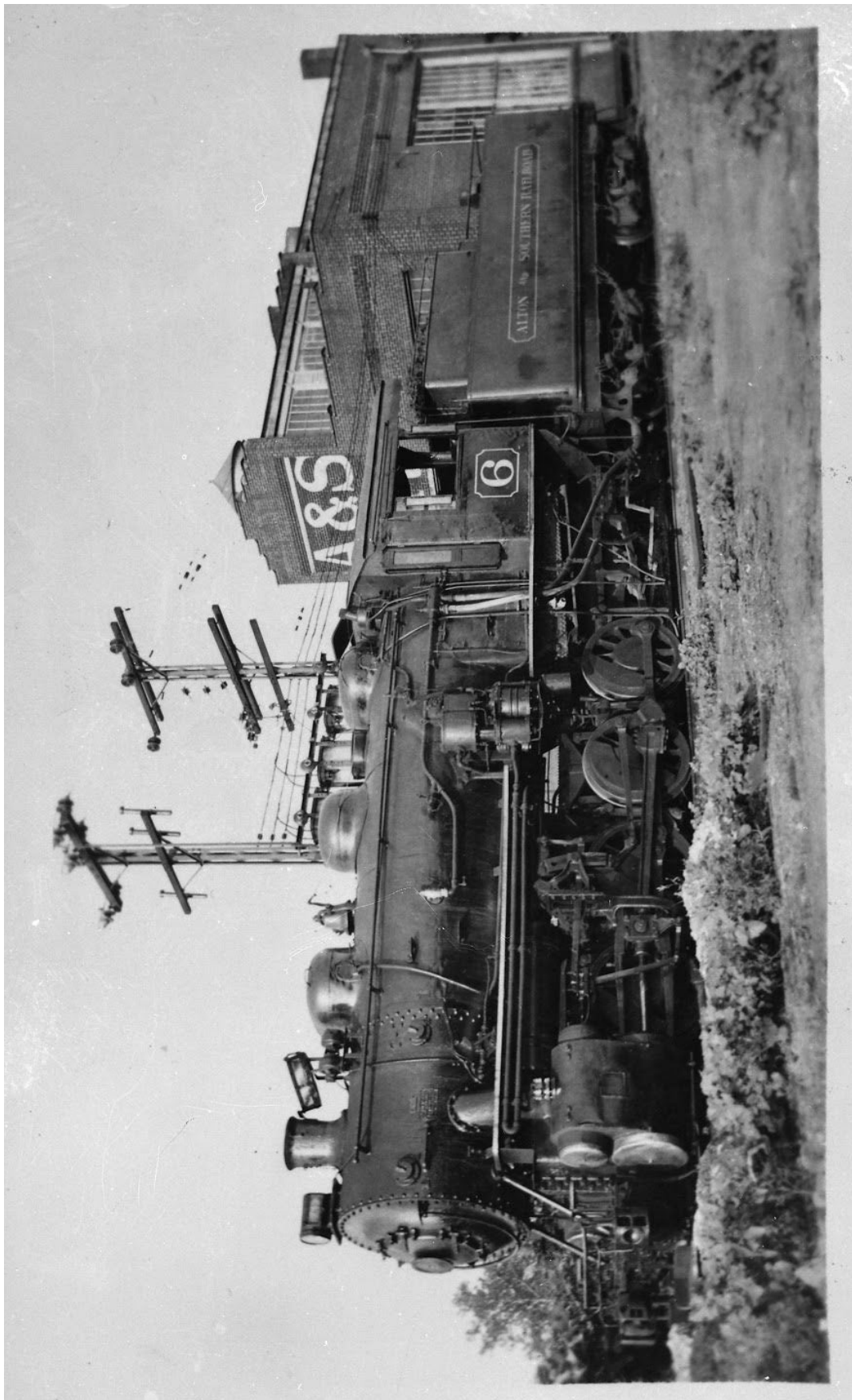
For example, earlier locomotives on the A&S were delivered with the rims of all the wheels painted white, and the rods were also painted a light color- white, or equally likely, a silver or aluminum color. Up until the late 1920's and into the early 1930's the A&S lettered their locomotives with the road name "ALTON & SOUTHERN RAILROAD" on the sides of the tender, and the locomotive number on the back of the tender and sides of the cab. Some locomotives were even delivered to the railroad with polished aluminum boiler jacketing. While attractive, one could only imagine the amount of cleaning crews must have done to keep it looking nice in the greasy, smokey, and dusty places they worked. The shiny sheet metal didn't last long before being painted over in black.

By 1931, the A&S changed the paint scheme of their locomotives. The "white-walled" wheels and side rods remained the same, but a border was added around the tender and cab lettering. It was about this time that the road name on the sides of the tender was changed to "ALTON AND SOUTHERN RAILROAD", with the "AND" in smaller print and rotated clockwise between 30 and 60 degrees. The covers on the cylinders and valves were done up in white/silver, and the sides of the running boards were painted the same. Most of the polished aluminum jacketing mentioned disappeared by 1932.

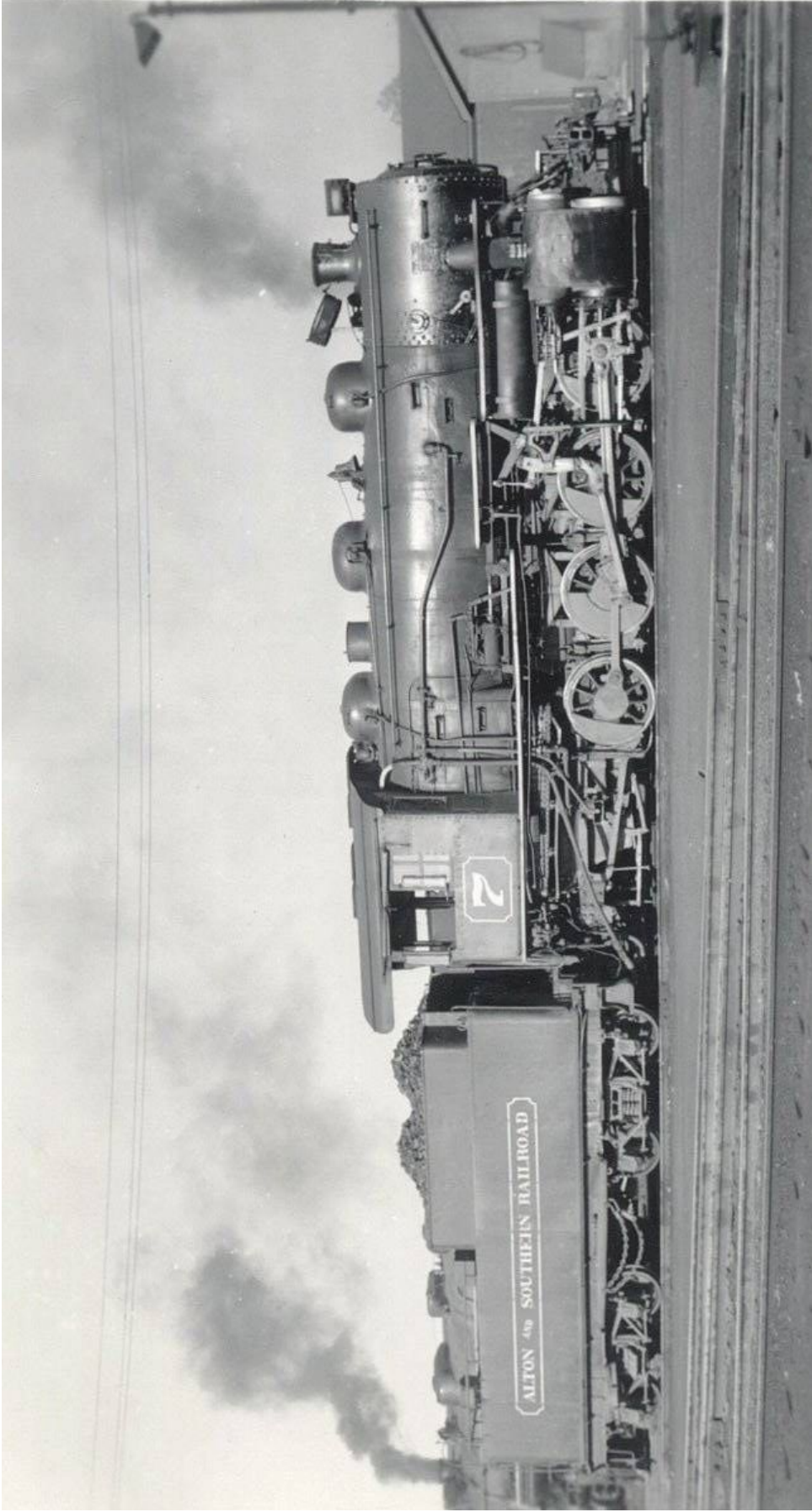
In the mid-1930's the A&S overhauled much of the roster and added more modern features such as blowdown separators (also known as blow-down mufflers), spark arrestors, and replaced swing-type steam powered bell ringers with air powered automatic ringers that only moved the bell's clapper, rather than swing the whole bell. Small, high-pitched six-chime whistles were also switched out for longer, deep toned, three-chime whistles. These whistles were not a standard for the A&S, however, as some engines could be found with many other types throughout the 1930's and into the mid-1940's.

Another more noticeable feature added to the locomotives during this time was the brakeman's cupola, which was and still is much better known as a "dog house". These were fitted on the tender of a locomotive, just behind the coal bunker, and gave shelter and a place to sit for the front-end brakeman. Since most of these dog houses were aftermarket additions on the A&S, they were unique in that they were made of wood. Most other railroads, and even A&S engines that were delivered with a doghouse from the builder, had them constructed from steel.

There would only be one last change made to the appearance of the Alton and Southern steam locomotives, which occurred during World War II. The lettering of the road name on the tender was changed to "ALTON AND SOUTHERN", and the white-walled wheels fell into disfavor, especially on switching locomotives. Road locomotives, however, often still carried the "white-walls", which were kept freshly painted to the last days of steam on the A&S.



No. 6 posed outside of the A&S shops in Alorton sometime in the early 1930's. Image from the collection of the Missouri Pacific Historical Society. (Date Approximate)



Since No. 7 was sold by the A&S relatively early into its life, photos of the engine are hard to find. Here it is shown in the early 1930's, likely not long before going to the B&O Railroad. Image from the collection of Sam Aufmuth. (Date Approximate)

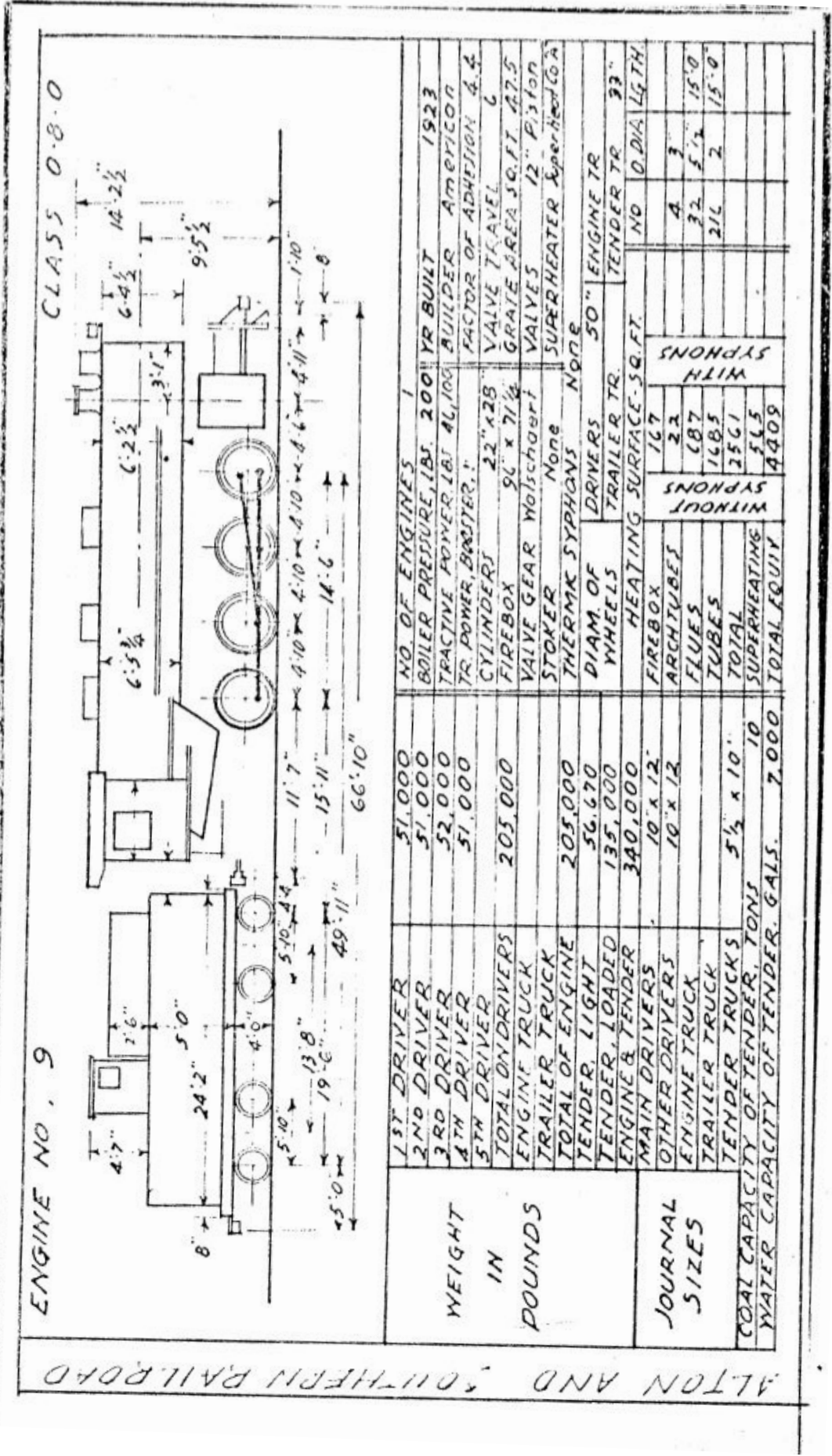
Eventually with rising traffic and extended trackage, the A&S required the addition of a new switching locomotive to the roster. In November of 1923, ALCO's Brooks works produced another 0-8-0 for the railroad. This engine would become A&S No. 9, the last standard switching locomotive for the road. No. 9 also carried the unusual dome-throttle and superheater configuration that could be found on the last two 0-8-0 locomotives the railroad bought. It was in many ways almost identical to Nos. 6 and 7, but was actually slightly larger.

It would not be until 1926 that the railroad ordered another switching locomotive to replace the earliest 0-6-0's the railroad owned. By this time the A&S was in need of a new locomotive to support the more demanding switching and transfer duties on the railroad. The 0-8-0 and 0-6-0 locomotives currently owned by the railroad were, while still useful, largely outdated compared to the other products being offered at the time. Considering that the 1920's had already seen more advancement in railroad technology than had been seen in the past 30 years combined, the A&S had plenty of options when looking for their new locomotive.

As it so happened, the American Locomotive Company was widely promoting three-cylinder engines at the time. A concept that was already widely developed and used in Europe, the design had a third cylinder beneath the center of the locomotive smokebox. This center cylinder, as it was called, applied its power to the cranked axle of a driver set. Sir Nigel Gresley of the London and North Eastern Railway is widely believed to have perfected this design with his Gresley 'conjugated' valve gear, which simplified the problem of timing the valve motion for the center cylinder. Other railroads had attempted to time the center valve motion by adding a third set of traditional valve gear, however this created a cramped configuration, and became a headache when it was necessary to set and time the motion of all three. Gresley valve gear solved this problem because the design based the timing of the center cylinder on the position of the valve pistons of the two outside cylinders. This was accomplished using a "2 to 1 lever" and "equal lever" that were positioned in front of the steam chest.

ALCO saw a market for this system in the US, and licensed the design in 1926 before advertising the benefits to their customers. The third cylinder increased power and yielded greater fuel efficiency, both of which were highly attractive to railroads since it was almost impossible to improve one without decreasing the other. The A&S had a special interest in this design, since the third cylinder increased torque, allowing locomotives to start heavier trains with a lower factor of adhesion and weight; which was very important for switching duties. The increased fuel economy was another attractive benefit of the design.

The A&S placed an order to ALCO for a new, three cylinder type 0-8-0 switcher, and specified certain requirements for the locomotive. These requirements mostly called for as



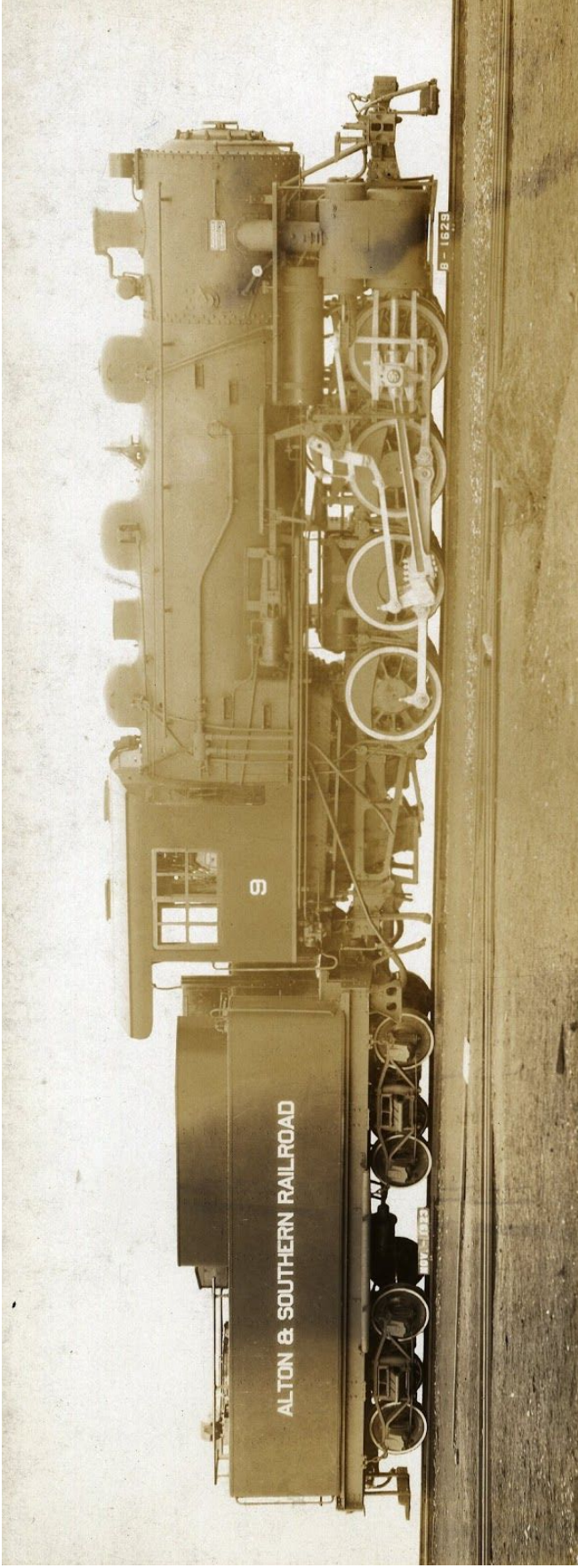
ENGINE NO. 9

CLASS O-8-0

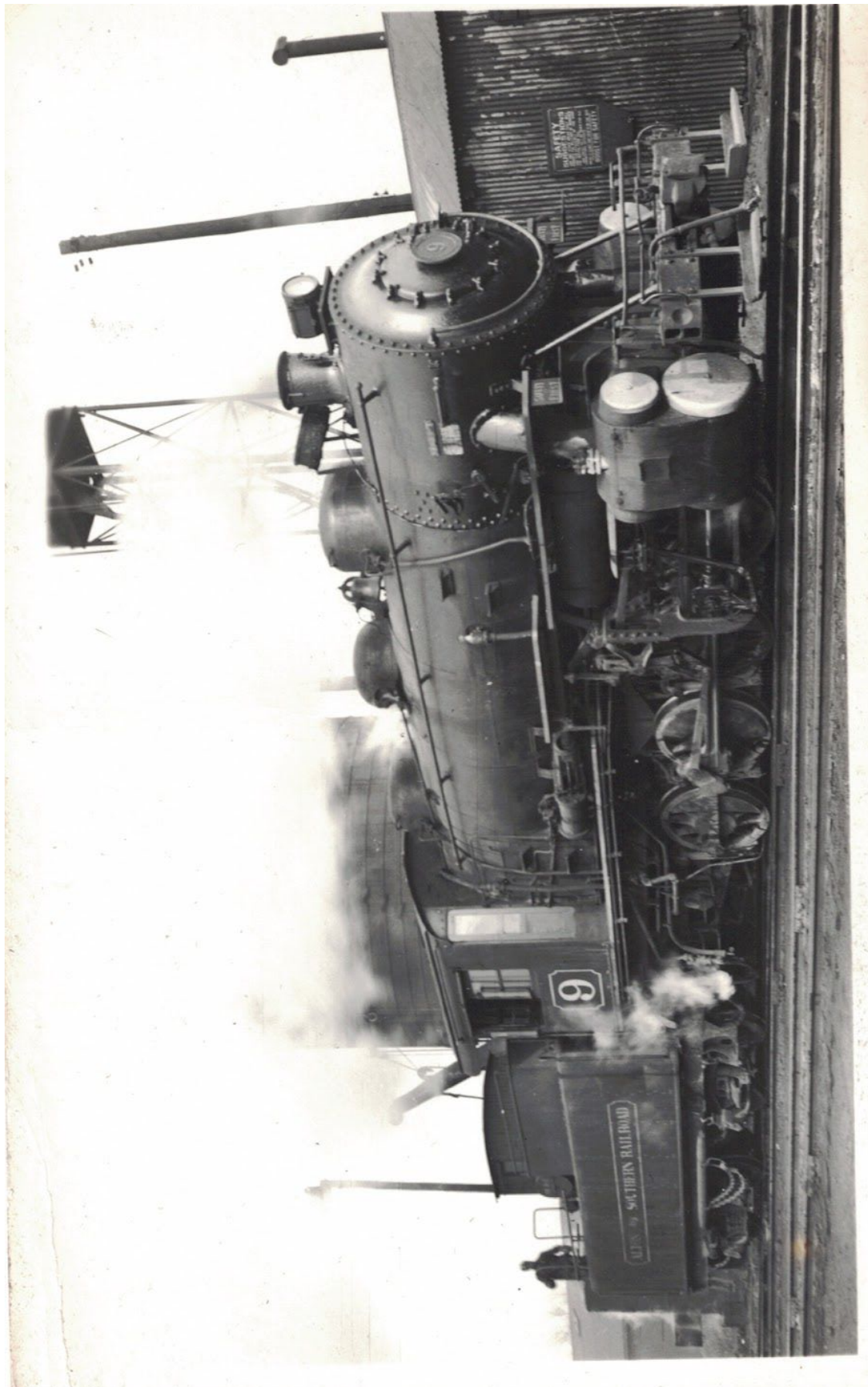
ALTON AND SOUTHERN RAILROAD

1ST DRIVER	51,000	NO. OF ENGINES	1
2ND DRIVER	51,000	BOILER PRESSURE, LBS.	200
3RD DRIVER	52,000	TRACTIVE POWER, LBS.	41,100
4TH DRIVER	51,000	TR. POWER, BROSTER, "	BUILDER AMERICAN
5TH DRIVER		CYLINDERS	22" x 28"
TOTAL ON DRIVERS	205,000	FIREBOX	96" x 71 1/2"
ENGINE TRUCK		VALVE GEAR	Walschaert
TRAILER TRUCK		STOKER	None
TOTAL OF ENGINE	205,000	THERMK SYPHONS	None
TENDER, LIGHT	56,670	DIAM. OF WHEELS	50" ENGINE TR 33"
TENDER, LOADED	135,000	HEATING SURFACE, SQ. FT.	
ENGINE & TENDER	340,000	FIREBOX	167
MAIN DRIVERS	10" x 12"	ARCHTUBES	22
OTHER DRIVERS	10" x 12"	FLUES	187
ENGINE TRUCK		TUBES	1685
TRAILER TRUCK		TOTAL	2561
TENDER TRUCKS	5 1/2" x 10"	SUPERHEATING	565
COAL CAPACITY OF TENDER, TONS	10	TOTAL EQUIV	4409
WATER CAPACITY OF TENDER, GALS.	7,000	WITHOUT SYPHONS	
		WITH SYPHONS	
		NO	4
		32	5 1/2
		216	2
			15'0"
			15'0"

Diagram of A&S No. Nine, from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



A&S No. 9 as it was finished by the ALCO Brooks Works in November of 1923. Image courtesy of the National Museum of Transportation archives.



An A&S employee climbs atop the tender of No. 9 at a water tower sometime in the mid-late 1930's. Photo from the collection of David Huelising.

many aluminum components as possible, such as grab irons, steps, the number board, and even the builders' plates. It would appear that the A&S wanted to test the high load bearing qualities of aluminum on a locomotive, as they specified the lightweight metal for many of the valve gear components such as the eccentric rod, radius rod, combination lever, and union link. Even the levers for the Gresley valve gear were forged in aluminum.³ ALCO engineers and drafters soon began drawing the plans for this new locomotive, assigning it order number S-1560.

On June 14th, 1926 the erection card for order S-1560 was completed at ALCO's Schenectady, New York works. It was designed as an ALCO class S-243. The erection of the locomotive occurred in mid to late August of 1926, and by the end of the first week or two of September the locomotive was tested, broken in, and posed for the builder's photo. It was then readied for shipment. It was to be the A&S Railroad's No. 12, their most technologically advanced locomotive at the time, and cost a total of \$57,598.20.

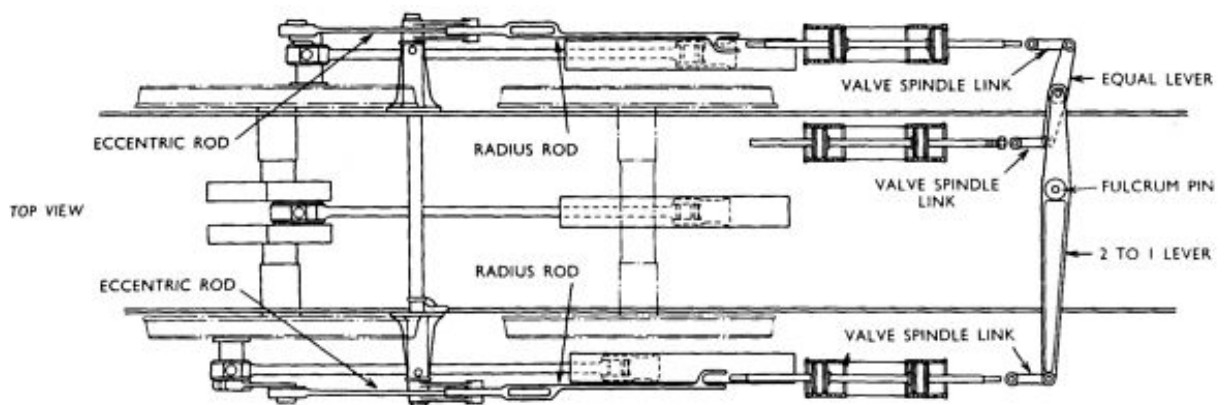
The shipment and delivery of a locomotive is often the most overlooked aspect of a particular engines story, as most do not think to ask exactly *how* these machines are moved across the country to the railroad that ordered them. In nearly every single case, the locomotive was shipped dead in tow as part of a freight train. Builders such as ALCO would ship new locomotives in pairs, first removing the main rods and eccentric rods to prevent unnecessary wear, then installing a bypass airline for the brakes. They would also temporarily outfit the cab of one of the locomotives as a sort of living space for the messenger- a company representative who would watch over both locomotives for the duration of the trip. The messenger was responsible for lubricating the locomotives and watching for signs of trouble. To make his journey as comfortable as possible he would make sure his living arrangements within the cab were up to his standards, as he might spend a month or more crossing several thousand miles. To one side he would put his bunk and a shelf, to the other side a stove would be placed for heating and cooking. If there was enough room, he might also place a chair and small table. His provisions and stove fuel would be kept in the tender. The messenger would also carry documentation, blueprints, receipts, and other important information that would be needed by the railroad upon delivery. When the locomotive arrived, he would oversee the inspection and testing process; only being released from his duty when all documents had been delivered and the engine was accepted by the the railroad for service.

Just like nearly every other locomotive in the country, order S-1560 went through a journey like this in mid to late September of 1926, traveling approximately 1,000 miles before reaching A&S rails in East St. Louis. On October 1st, the locomotive, now officially A&S No. 12,

³ The performance of these parts would later become an important factor when the A&S expanded aluminum's role in the construction of 0-10-0 No. 14.



A surviving example of the third-cylinder design operated by Sir Gresley's "conjugated" valve gear. The 'equal lever' is on the left side of the steam chest, while the 'Two-to-One' lever is on the right. Note how their motion was driven from the two outside valves.



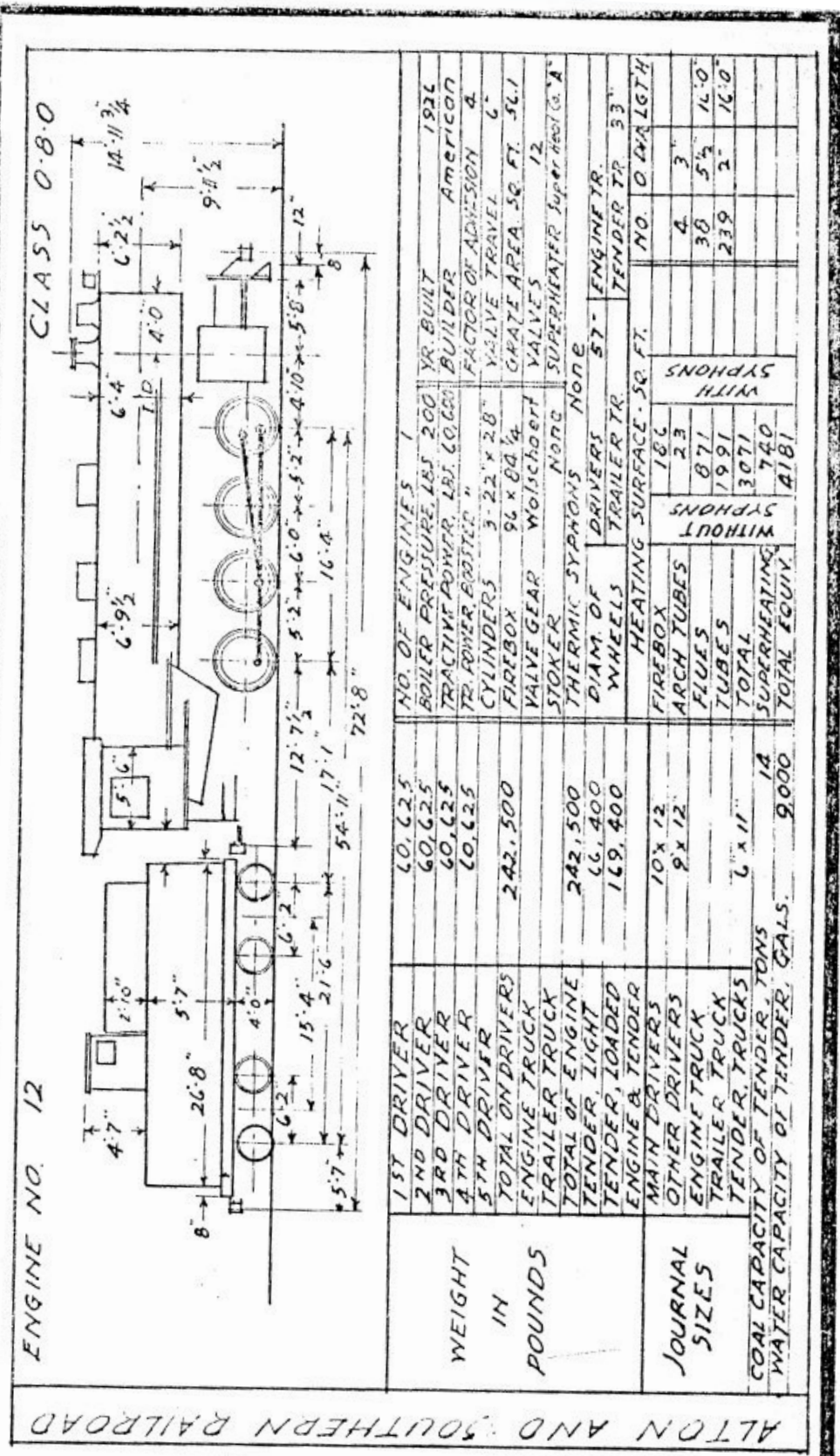
entered service. It would appear that there are few surviving maintenance and service records, if any, for No. 12, just like the other locomotives used on the A&S.

Unfortunately it is more often than not that great inventions don't prove success or failure until after years of use in the field. Such was the fate of three cylinder locomotives in the US. Although many crews loved the performance, power, and smooth ride the engines offered, they were not quite so cherished by shop crews. The location of the center cylinder made it difficult to inspect and service, and removal of the center driving rod was cramped, sometimes dangerous work. Other railroads that had only experimented with one example of these locomotives found that before long, shop crews began to document that the work on the center cylinder and running gear had been done when it had actually not. When this happened, more mechanical issues developed. In certain cases these three cylinder locomotives became known as "Roundhouse Queens"- engines that spent unusually large amounts of time under repair or out of service. Ultimately, trial through time showed that the impressive savings in fuel economy with these locomotives were quickly diminished by the maintenance costs, and railroad officials noticed. Throughout the 1930's most railroads that had only experimented with the 3-cylinder design gave up on it, either converting the locomotives to two-cylinder operation or even scrapping them.

It does not appear that the A&S was of these. It seem that the benefits of No. 12's third cylinder was worth its while, and was well maintained throughout its life. It was a significant locomotive on the railroad's roster, regularly used in both switching and longer distance transfer service. However, steam technology could not hold out, and the A&S began to look at dieselisation. It is likely that the A&S would have done this years earlier than they did, had it not been for the traffic boom of World War II, which saw the the vital transfer road using every available steam and diesel locomotive to keep up with the demands of wartime traffic. As the A&S began to dieselise, time was growing short for the locomotive. Fortunately, members of the recently founded Museum of Transport recognised that No. 12 was the last operating 3 cylinder locomotive in the midwest, and sought to acquire and preserve the engine for its mechanical uniqueness and ties to the history and development of the A&S⁴. In the fall of 1947, No. 12 had its fires dropped, and was given a final inspection on October 23rd before being placed in storage, awaiting a traffic surge to warrant its return to service. Up to this point it had spent 21 years with the A&S, running up a total of 622,626 miles with the railroad. These numbers were destined to never increase.

In November of 1947, the museum approached the Alton and Southern about the possibility of acquiring No. 12. The A&S agreed to donate the locomotive, however for unknown reasons wanted to hold the engine for four months before donation. It is not believed that the engine operated during this period. On March 29th, 1948, No. 12 was moved to Missouri Pacific's Chouteau Yard in St. Louis, where it was thoroughly cleaned and brushed up after having likely spent the winter in the 'dead line' at the A&S locomotive facility.

⁴ Contrary to common misconception, No. 12 was not a compound locomotive.



ENGINE NO. 12
CLASS O-8-0

ALTON AND SOUTHERN RAILROAD

1ST DRIVER	60, 625	NO. OF ENGINES	1	YR. BUILT	1926
2ND DRIVER	60, 625	BOILER PRESSURE, LBS	200	BUILDER	AMERICAN
3RD DRIVER	60, 625	TRACTIVE POWER, LBS	60,000	FACTOR OF ADHESION	4
4TH DRIVER	60, 625	TR. POWER, BOILER "		VALVE TRAVEL	6"
5TH DRIVER		CYLINDERS	3-22" x 28"	GRATE AREA, SQ. FT.	56.1
TOTAL ON DRIVERS	242, 500	FIREBOX	96 x 84 1/4	VALVES	12
ENGINE TRUCK		VALVE GEAR	Wolschoeff	SUPERHEATER	Super Heat Co. A
TRAILER TRUCK		STOKER	NONE		
TOTAL OF ENGINE	242, 500	THERMIC SYPHONS	NONE		
TENDER, LIGHT	66, 400	DIAM. OF DRIVERS	57"	ENGINE TR.	
TENDER, LOADED	169, 400	WHEELS	TRAILER TR.	TENDER TR.	33"
ENGINE & TENDERS		HEATING SURFACE - SQ. FT.		NO. OF VALGTH	
MAIN DRIVERS	10 x 12	FIREBOX	186		
OTHER DRIVERS	9 x 12	ARCH TUBES	23		
ENGINE TRUCK		FLUES	871	WITH SYPHONS	
TRAILER TRUCK		TUBES	1991	WITHOUT SYPHONS	
TENDER TRUCKS	6 x 11"	TOTAL	3071		
COAL CAPACITY OF TENDER, TONS	14	SUPERHEATING	740		
WATER CAPACITY OF TENDER, GALS.	9,000	TOTAL EQUIV.	4181		

Diagram of A&S No. 12, from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



When No. 12 emerged from the American Locomotive Company plant in Schenectady, New York in September of 1926, it was the most modern and efficient locomotive on the A&S. It was also one of the locomotives delivered with polished aluminum jacketing. Image courtesy of the National Museum of Transportation archives.

On April 9th, No. 12 was moved to the Museum of Transport. Volunteers rode the pilot of the locomotive during the trip to lubricate the cylinders and insure there would be no damage. Upon arrival, the locomotive was placed behind MOT's Missouri Pacific Engine No. 2707. Later that month, on April 18th, the MOT formally accepted the donation of No. 12. A small ceremony was held with museum and A&S officials, and some local newspapers turned out for the event, as well as about a dozen kids. Being a small developing museum, the arrival of No. 12 was a big deal for the volunteers and supporters of the MOT.

By the end of 1950 it was apparent that No. 12 was the only A&S steam locomotive that had not met its date with the scrapper's torch, thanks to the actions of the legendary museum director Dr. Roberts, volunteer Willis Goldschmidt, and others. No. 12 survives today at National Museum of Transportation in St. Louis; an invaluable artifact as the last of its kind. It is part of the story of the never-ending technological innovation that propelled the United States to greatness in the 20th Century.

Form No. 3		ANNUAL LOCOMOTIVE INSPECTION AND REPAIR REPORT		Form—W. M.—112	
October, 19 47		ALTON AND SOUTHERN RAILROAD		Locomotive Number	12
		Company		Initial	A&S
In accordance with the act of Congress approved February 17, 1911, as amended March 4, 1915, and the rules and instructions issued in pursuance thereof and approved by the Interstate Commerce Commission, all parts of locomotive No. 12, including the boiler and its appurtenances, were inspected on October 23, 19 47, at East St. Louis, Illinois, and all defects disclosed by said inspection have been repaired, except as noted on the back of this report.					
1. Date of previous hydrostatic test,	October 31, 19 46	12. Was boiler washed? Water glass cocks and gauge cocks cleaned?	Yes Yes Yes		
2. Date of previous removal of caps from flexible staybolts,	October 31, 19 46	13. Condition of crown stays and staybolts	Good - Good		
3. Date of previous removal of flues	August 11, 1945	14. Condition of sling stays and crown bars	Not Used - Not Used		
4. Date of previous removal of all lagging	October 31, 1946	15. Condition of firebox sheets and flues	Good - Good		
5. Hydrostatic test pressure of	250 pounds was applied.	16. Condition of arch tubes	Good Water bar tubes Not Used		
6. Were caps removed from all flexible staybolts?	No	17. Condition of throat braces	Not Inspected		
7. Were all flues removed? No	Number removed None	18. Condition of back head braces	Good as far as inspected		
8. Condition of interior of barrel	Good above flues	19. Condition of front flue sheet braces	Good		
9. Was all lagging removed?	No	20. Were fusible plugs removed and cleaned?	Not Used		
10. Condition of exterior of barrel	Not inspected	21. Were steam leaks repaired?	Yes		
11. Was boiler entered and inspected?	Yes	I certify that the above report is correct. Max Kupish, Inspector			
22. Were steam gauges tested and left in good condition?	Yes	27. Condition of brake and signal equipment	Good - Not Used		
23. Safety valves set to pop at 200 pounds, 203 pounds, 205 pounds.		28. Were drawbar and drawbar pins removed and inspected?	Yes		
24. Were both injectors tested and left in good condition?	Yes	29. Condition of draft gear and draw gear	Good - Good		
25. Were steam leaks repaired?	Yes	30. Condition of driving gear	Good		
26. Hydrostatic test of 175 pounds applied to main reservoirs.		31. Condition of running gear	Good		
		32. Condition of tender	Good		
		I certify that the above report is correct. Max C. Shelton, Inspector			
STATE OF Illinois	}				
COUNTY OF Ste. Clair	}				
Subscribed and sworn to before me this		day of October, 19 47, by	Max Kupish and Max C. Shelton inspectors of the		
ALTON AND SOUTHERN RAILROAD Company		Notary Public			
The above work has been performed and the report is approved.		Charles Stedman, Officer in Charge			
CARRIED IN STOCK BY CON. F. OUBREAN PRINTING CO., ST. LOUIS, MO.					
Items 6 and 26 hammer tested as per rule 23 and 108.		(OVER)			

Inspection report for No. 12 from its last few days of operation on the A&S. Courtesy of the National Museum of Transportation Archives. Reverse side is marked:

Out of Service
April - 1940
August - 1943



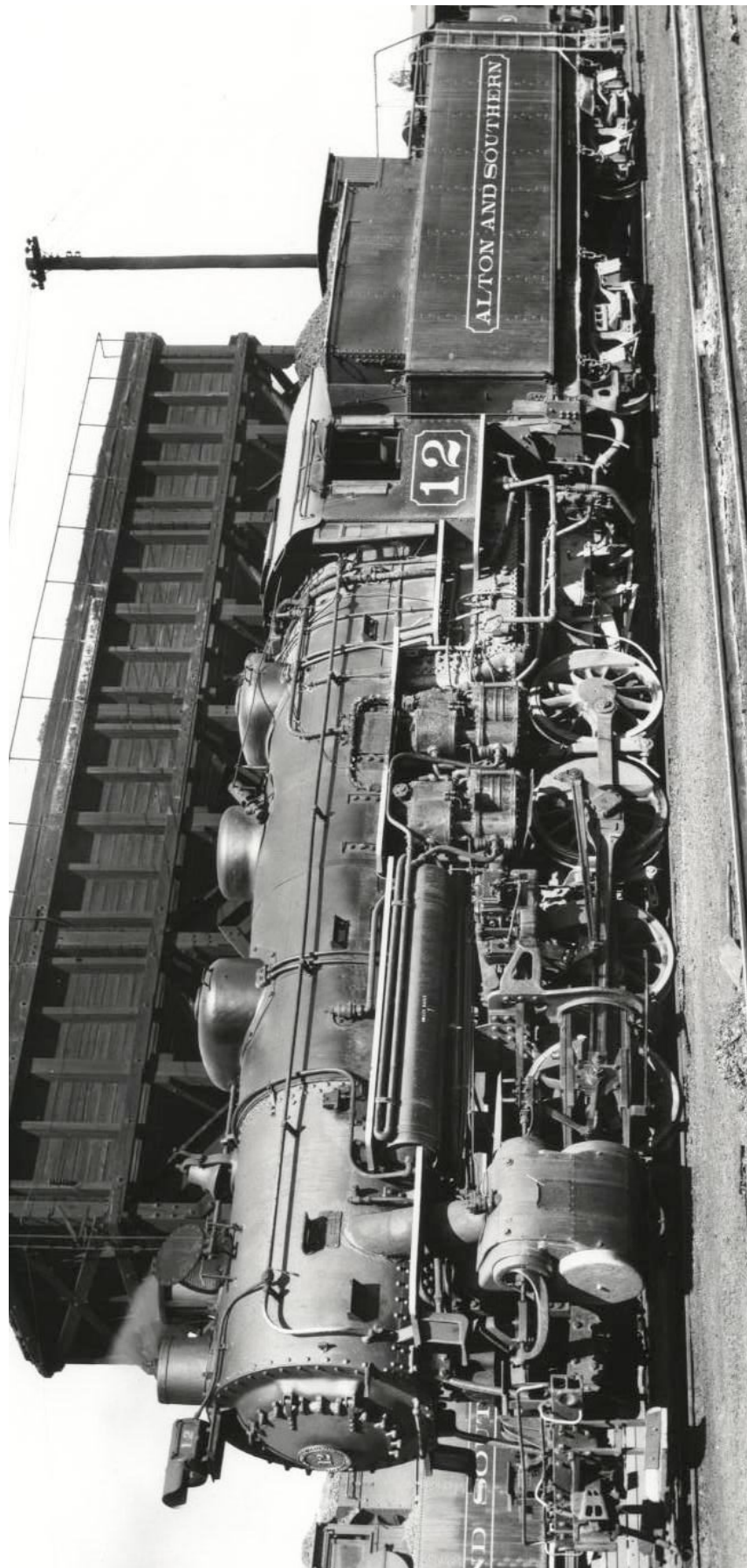
The beautiful polished boiler jacketing the A&S was known for was impractical and didn't last long. Here is No. 12 in August of 1932, with the more classic black jacketing. Photo from the collection of Gary Everhart.



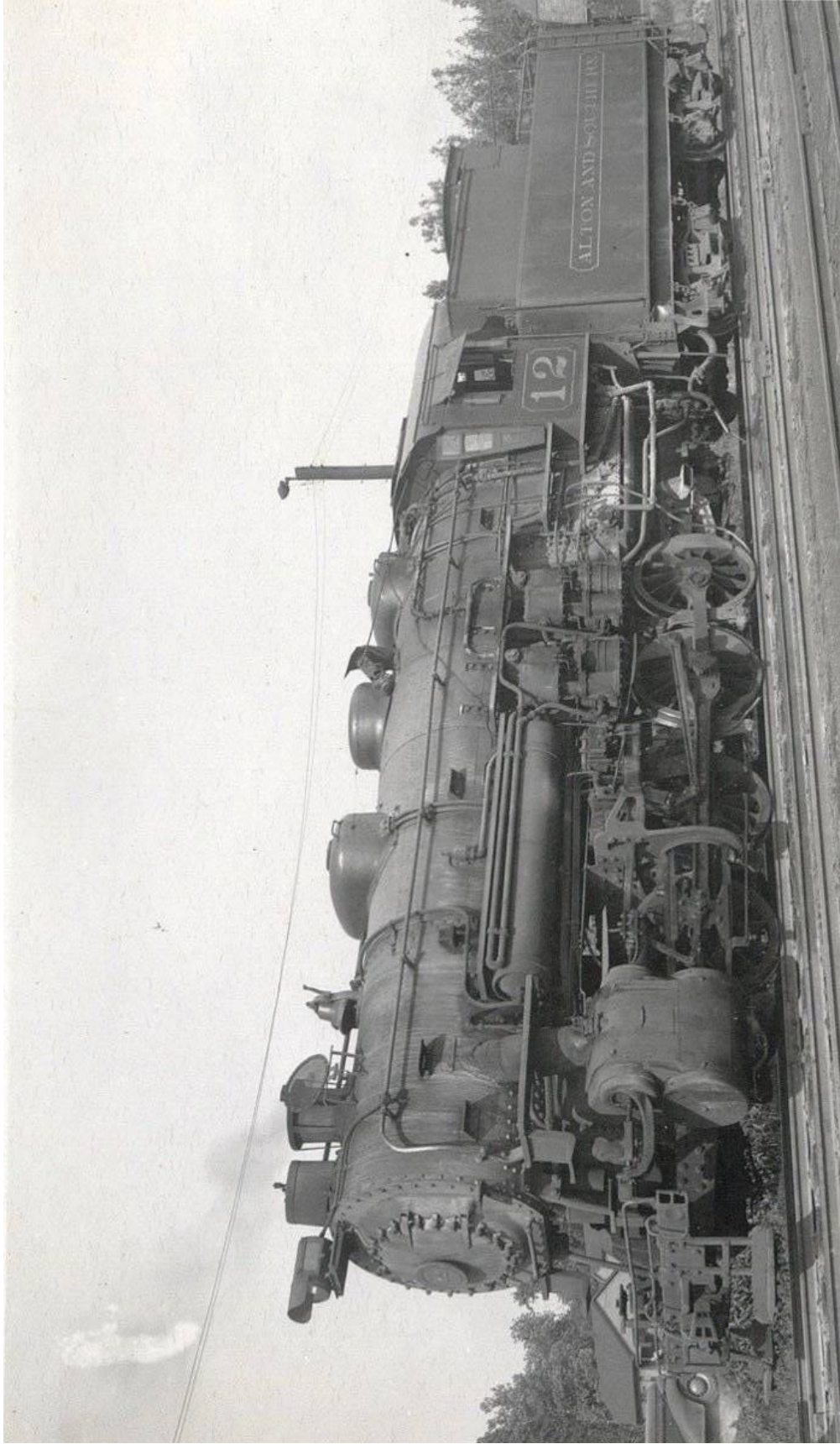
A&S No. 12 sometime around the mid-1930's, probably not long after having the toolbox behind the coal bunker replaced with a "Doghouse". Image from the collection of the Missouri Pacific Historical Society. (Date Approximate)



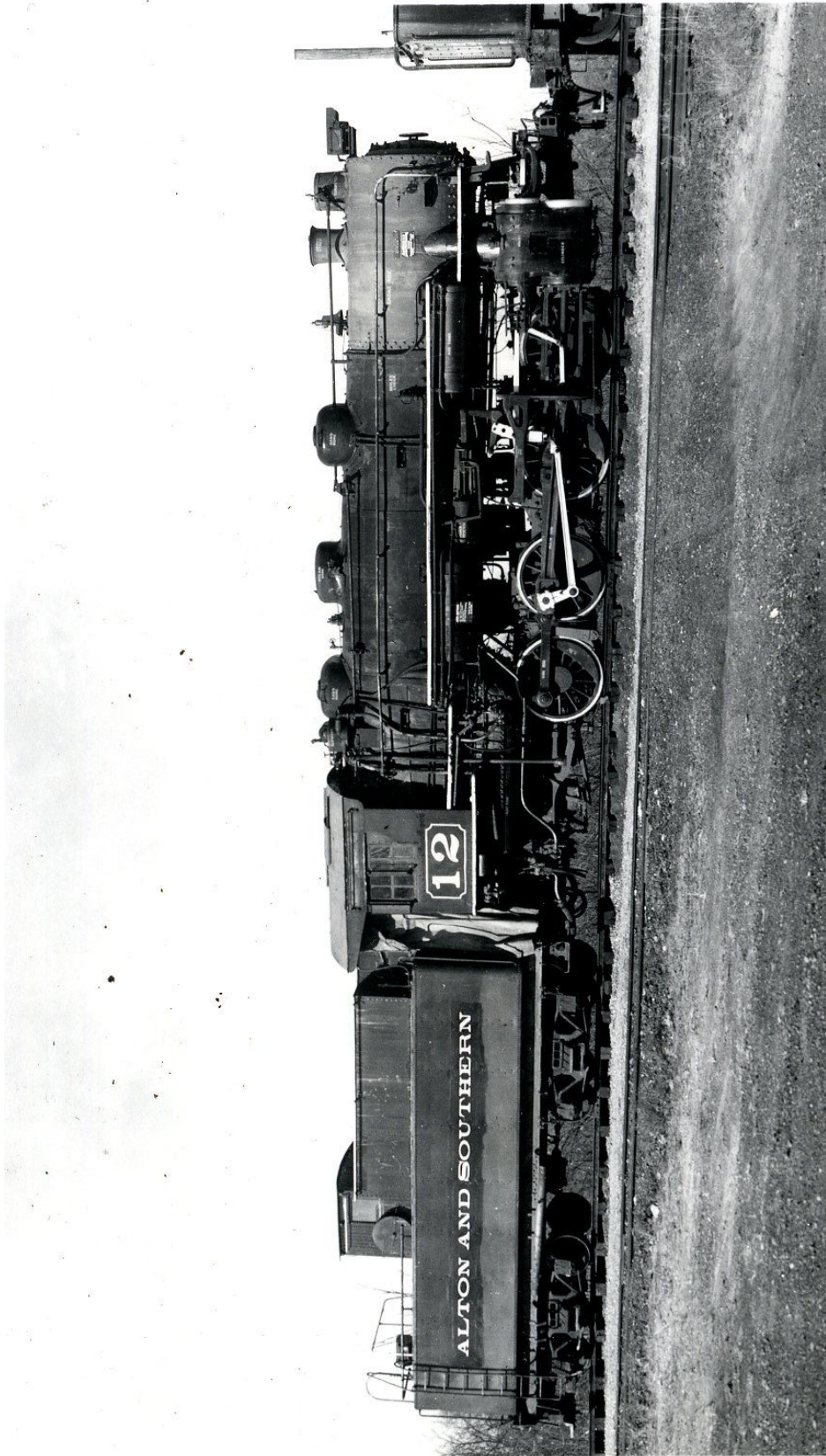
The Engineer and Fireman prepare for the next job they will undertake with No. 12, shown here in the Summer of 1939 after receiving the upgrades the A&S made a couple of years prior. Photo from the collection of Sam Aufmuth



As the end of World War II begins to come within reach, No. 12 pauses for a moment after being serviced at the A&S locomotive facility in the Spring of 1945. Image courtesy of the National Museum of Transportation archives.



Only a few months from retirement, No. 12 comes into the A&S yard in East St. Louis on a hot July day in 1947. Steam locomotives are gradually being sidelined as new ALCO diesels arrive. Image from the collection of David Huesing.

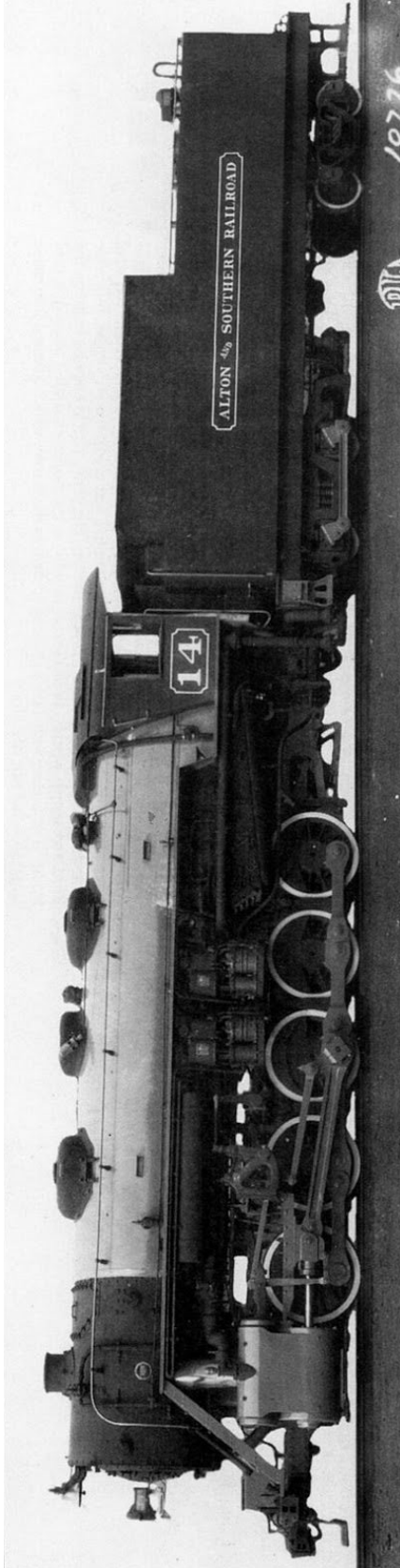


Sitting on display at the National Museum of Transportation, Alton and Southern No. 12 is both the only surviving three-cylinder switcher and the only surviving A&S steam locomotive. Image courtesy of the National Museum of Transportation archives.

No. 14 was the next and last switching locomotive bought by the A&S. The massive 0-10-0 was built by Baldwin in early January of 1931, and was the first non-ALCO locomotive bought new by the railroad. The A&S needed a large, heavy duty switching locomotive, and No. 14 was built for the task, with all 324,000 lbs of it sitting on the driving wheels to aid in traction. The forward tender truck was also outfitted with a booster, increasing power during low speed operation, when the most tractive effort was needed. From the beginning the locomotive was largely used as a promotional stunt by ALCOA for the use of aluminum. The locomotive had as many aluminum parts as was feasible, and like No. 12 had the number board, grab irons, builders plates, and steps made of the material. Unlike 12, No. 14 also sported an aluminum bell. The A&S took great pride in the locomotive, and was sure to keep it clean and pretty.

No. 14 was also one of only a few steam locomotives to ever use aluminum main and side rods. Lighter materials for reciprocating parts reduced rail pounding and made balancing of the locomotive's running gear easier. Aluminum however, succumbed to metal fatigue quickly, and as a result was not well suited for repetitive and high stress applications, such as was required for locomotive driving rods. Any railroad that attempted to use aluminum for these parts soon did away with the idea. Like them, the A&S soon had to replace the rods on No. 14 with those of typical steel when the aluminum finally failed.

Except for the short bout with aluminum rods, No. 14 was a rather successful locomotive. Its size and weight contributed to the immense power the locomotive could exert, and with the booster cut in to help start the train, it was said to surpass 96,000 pounds of tractive effort. No. 14 was by far, the most powerful locomotive the A&S ever owned. For this reason it was desired for the heavy switching operations at the Aluminum Company of East St. Louis' plant. However, the same factors that made the locomotive desirable also contributed to its downfall. Its weight and long rigid wheelbase was hard on rails, and the locomotive was simply too big to be practical for everyday switching duties on a road as small as the A&S. Like other railroads, the 0-10-0 arrangement never really took off on the A&S, and No. 14 was the only one of its kind. Sometime during or after World War II, the tender booster was removed to save on maintenance costs. It was used by the A&S in many of their advertisements until a couple years after the war when steam was phased out and the locomotive was scrapped.



Emerging from the depths of the Baldwin Locomotive Works in January of 1931, No. 14 was the most powerful locomotive to operate on the A&S. Image from the collection of Sam Aufmuth.



No. 14 was the pride of the Alton and Southern. Here the skilled shop workers pose in front of the locomotive in 1936. Image courtesy of the National Museum of Transportation archives.



No. 14 and its crew go about their duties on October 19th of 1936. Image courtesy of the National Museum of Transportation archives.



The paradigm shift of steam to diesel has not quite started on the A&S when a freshly washed No. 14 is serviced at the locomotive facility on April 18th, 1946. Note how the tender truck booster has been removed. Image courtesy of the National Museum of Transportation archives.

-Workhorses-

The Alton and Southern Mikados

No. 2, 10, 11, 13, and 15-27

The majority of locomotives used by the A&S were 2-8-2 Mikados. They were well suited for much of the work on the A&S, especially as longer distance freight transfer runs were made as the railroad expanded. Another benefit was that by the standards of other railroads, they were small and antiquated, and thus could easily be bought from the roads that were in the process of replacing them. The A&S would eventually own 16 Mikados, most of which were bought second hand in the boom years of World War II. However, the first few of these locomotives were built new for the A&S. The first mikados purchased were Nos. 10 and 11, both built by ALCO's Schenectady works in October 1925 and May 1926 respectively. These twins were extremely useful, and led to the continued investment in the 2-8-2 type over the years. No. 11 would later be scrapped when the A&S purchased new ALCO diesel-electrics to replace their steam power. No. 10 however, would eventually be sold to the Noroeste de Mexico, and became their No. 102. This locomotive did not last long in Mexico though, as it was scrapped by 1950.

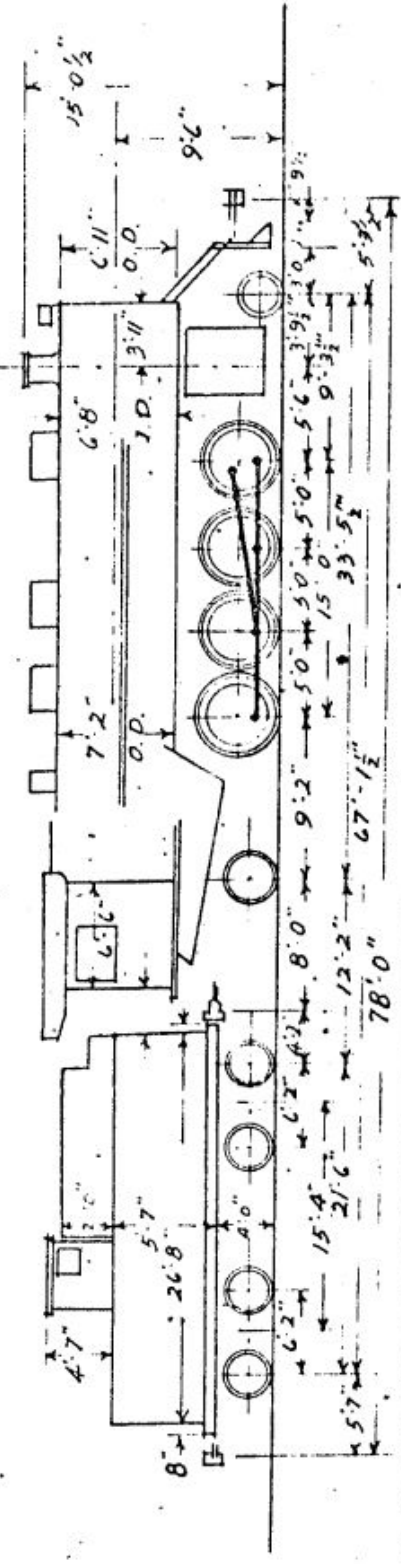
The next Mikado, No. 13, was yet another ALCO product, built in early 1927. It would seem that the A&S heavily favored ALCOs, as nearly all of the locomotives bought new for the railroad came from the famed builder. No. 13 was slightly smaller than the railroad's other mikados, but it was equipped with a Standard Model B automatic stoker, the first stoker on the Alton and Southern. It seems they made a good impression on both management and crews, for all locomotives built new for the A&S after No. 13 would be equipped with the same "MB" type stoker.

No. 14 was built in February of 1928 for the A&S, and was then sold to the St. Louis and Ohio River Railroad between 1928 and late 1930. It became their No. 2, but was still used and serviced by the A&S, since the St.L&OR was by then a subsidiary of the A&S. The locomotive also had a tender truck booster, making it one of only two engines on the A&S to have such a device. The road number 14 was soon reused with the purchase of the Alton and Southern 0-10-0, which became the railroads second No. 14. No. 2 still carried the A&S paint scheme and lettering font, although the tender carried the name of the St.L&OR. It appears to have been scrapped in 1949.

To replace the aging locomotives that were sold in the late 1920's and early 1930's, the A&S purchased two new Mikados during the Great Depression. These new locomotives could do the work of two or more older locomotives, and would thus reduce maintenance costs and

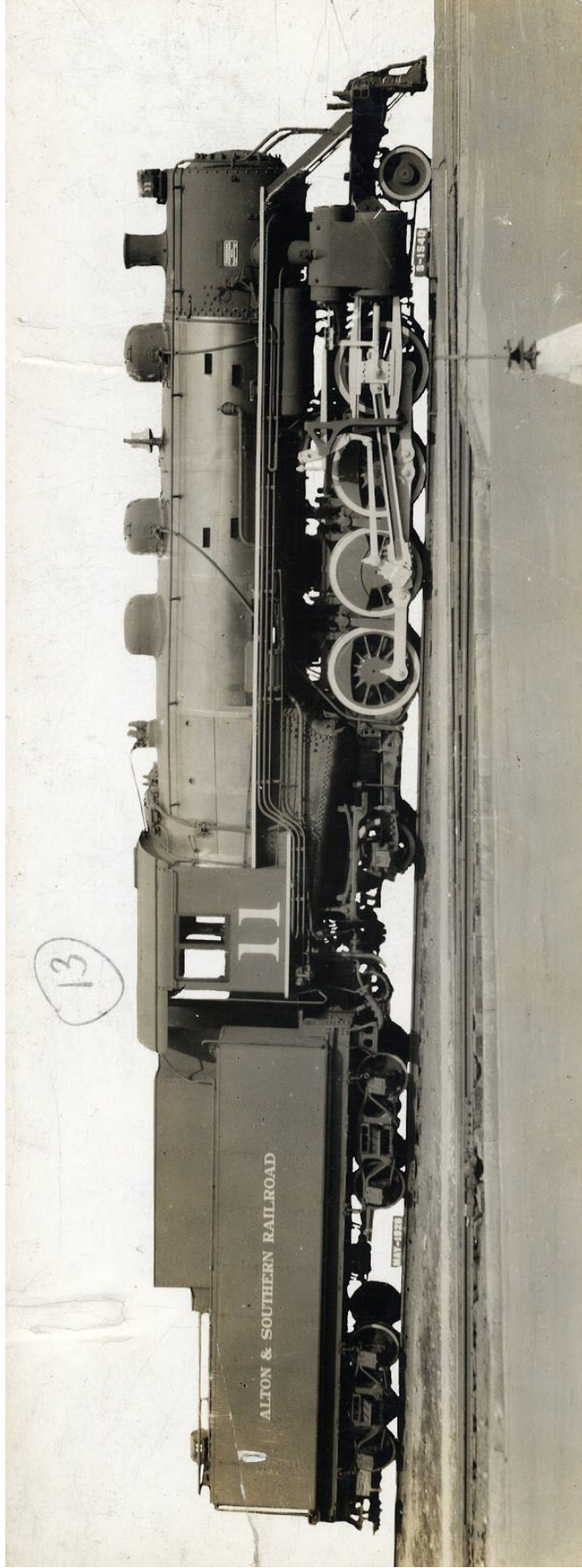
ENGINE NOS. 10, 11

CLASS 2-8-2



ALTON AND SOUTHERN RAILROAD		CLASS 2-8-2	
1ST DRIVER	54,500	NO. OF ENGINES	2
2ND DRIVER	54,500	BOILER PRESSURE, LBS.	190
3RD DRIVER	56,500	TRACTIVE POWER, LBS.	53,200
4TH DRIVER	54,500	TR. RMNR. BOOSTER	None
5TH DRIVER		CYLINDERS	25" x 30"
TOTAL ON DRIVERS	220,000	FIREBOX	114" x 84" x 84"
ENGINE TRUCK	17,000	VALVE GEAR	Walschaert
TRAILER TRUCK	38,000	STOKER	None
TOTAL OF ENGINE	275,000	THERMIC SYPHONS	None
TENDER, LIGHT	65,000	DIAM. OF DRIVERS	55" ENGINE TR.
TENDER, LOADED	168,000	WHEELS	TRAILER TR. 37" TENDER TR. 33"
ENGINE & TENDER	443,000	HEATING SURFACE, SQ. FT.	NO. 10 DIA. LGTH
MAIN DRIVERS	10 1/2" x 12"	FIREBOX	216
OTHER DRIVERS	9 1/2" x 12"	ARCH TUBES	27
ENGINE TRUCK	6" x 12"	FLUES	1024
TRAILER TRUCK	8" x 14"	TUBES	2237
TENDER TRUCKS	6" x 11"	TOTAL	3504
COAL CAPACITY OF TENDER, TONS	14	SUPERHEATING	902
WATER CAPACITY OF TENDER, GALS.	9,000	TOTAL EQUIV.	4857
		WITHOUT SYPHONS	
		WITH SYPHONS	
		TR. RMNR. BOOSTER	None
		VALVE TRAVEL	6 1/2"
		GRATE AREA, SQ. FT.	11.8
		SUPERHEATER	Super Heel Co A
		YEAR BUILT	10-1925 11-1926
		BUILDER	AMERICAN
		FACTOR OF ADHESION	4.03

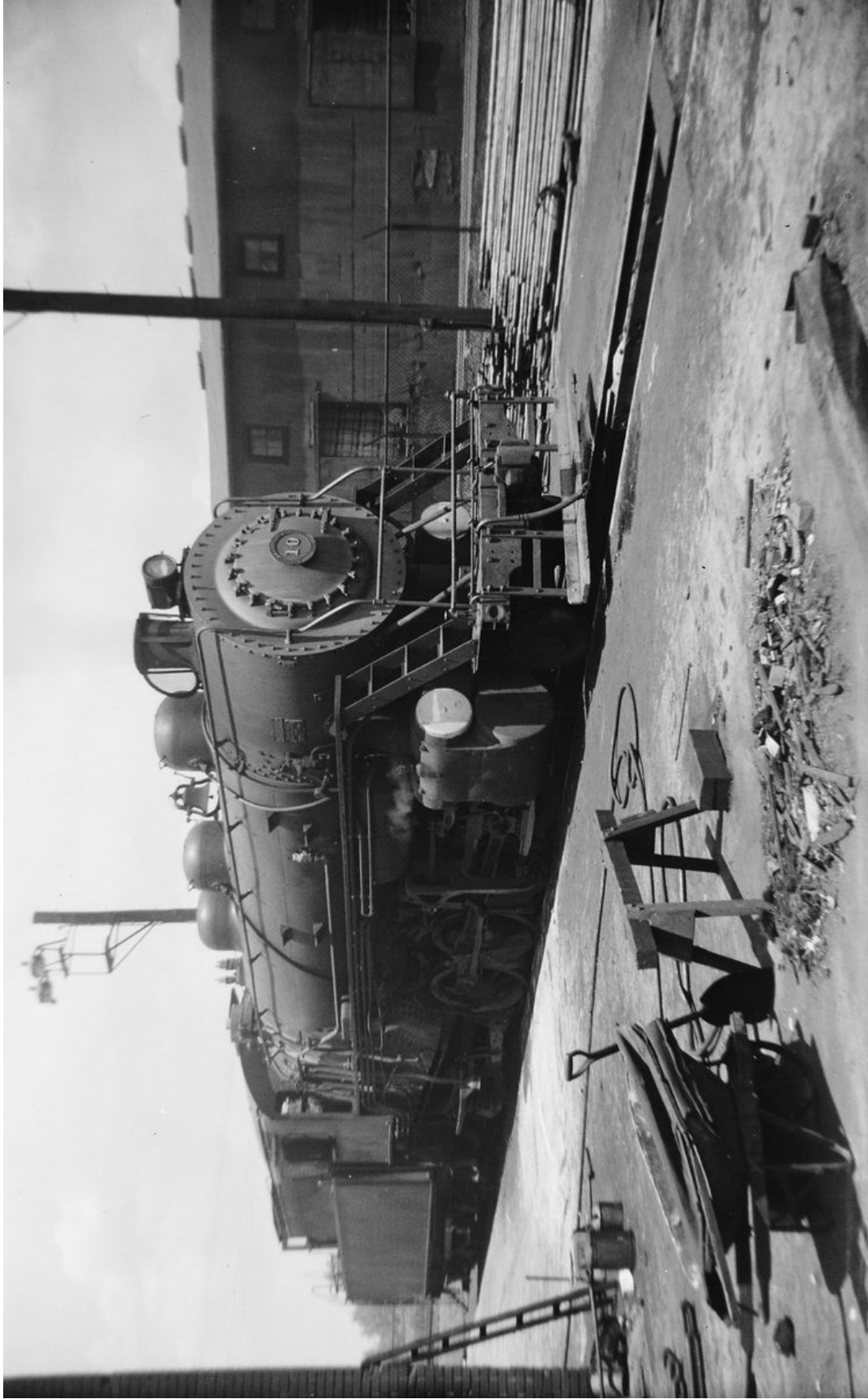
Diagram of A&S No. 10 and 11, from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



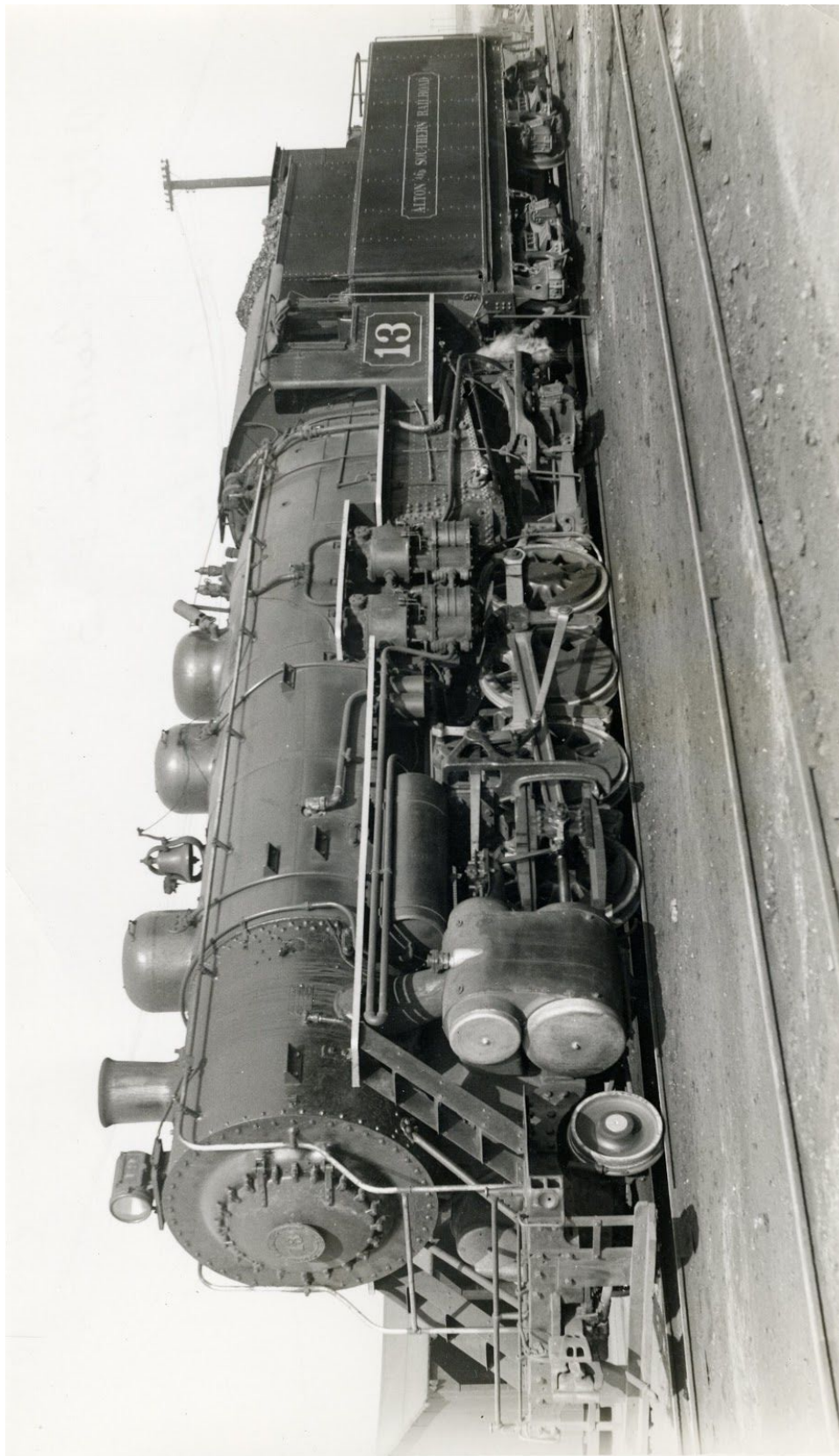
A&S No. 11 was the second mikado on the railroad when delivered by ALCO. A copy of No. 10, here it is shown outside of the Schenectady works in May of 1926. Image courtesy of the National Museum of Transportation archives.



No. 10, the Alton and Southern's first mikado. Here it is cleaned and serviced by two employees outside of the A&S locomotive facility sometime around the mid-1940's.
Photo from the collection of the Missouri Pacific Historical Society.



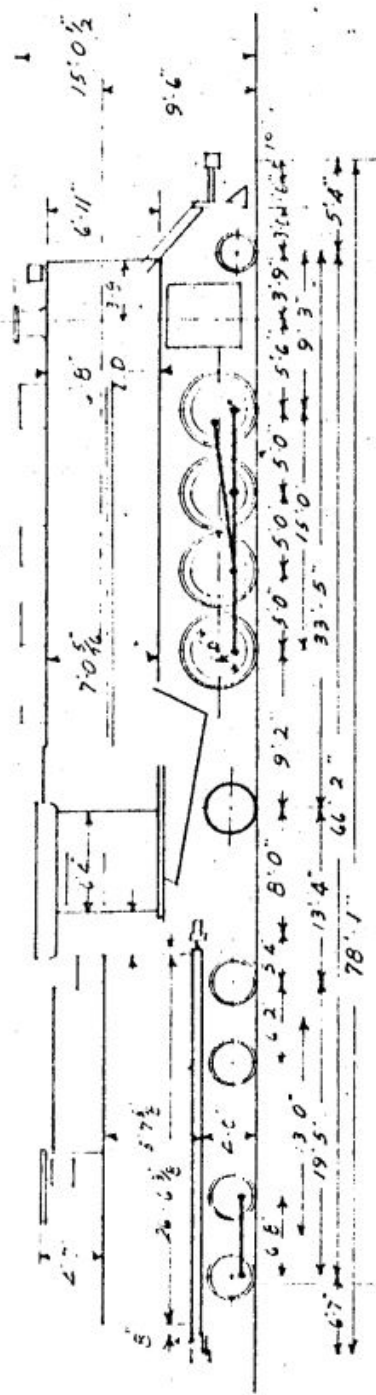
No. 10 in the A&S East St. Louis Yard. Image from the collection of the Missouri Pacific Historical Society.



No. 13 posing in the East St. Louis Yard on June 28th, 1936. Image courtesy of the National Museum of Transportation archives.

CLASS. 2-8-2-S

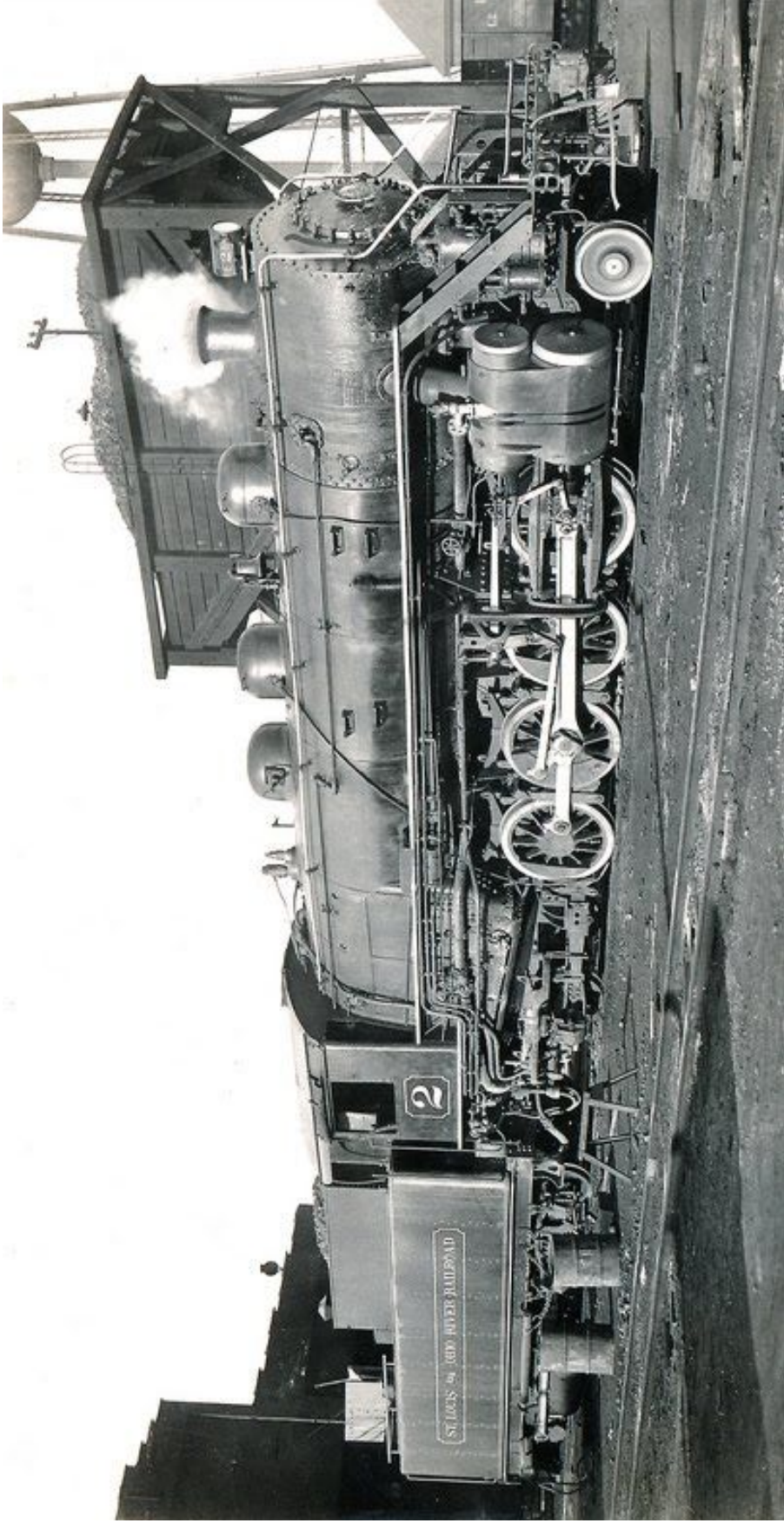
ENGINE NOS 2



ALTON AND SOUTHERN RAILROAD

1ST DRIVER	50,000	NO. OF ENGINES	1	1928
2ND DRIVER	50,000	BOILER PRESSURE, LBS.	180	YR BUILT
3RD DRIVER	50,000	TRACTIVE POWER, LBS.	52,200	BUILDER
4TH DRIVER	50,000	TR POWER BOOSTER	12,900	FACTOR OF ADHESION
5TH DRIVER		CYLINDERS	25 x 30	VALVE TRAVEL
TOTAL ON DRIVERS	200,000	FIREBOX	114 1/8 x 84 1/4	GRAPE AREA, SQ FT.
ENGINE TRUCK	27,500	VALVE GEAR	Walschaert	VALVES
TRAILER TRUCK	47,000	STOKER	Standard Mod Type 2	SUPERHEATER Super Hot Co A
TOTAL OF ENGINE	274,500	THERMIC SYPHONS	Nicholson	
TENDER, LIGHT	86,000	DIAM OF WHEELS	55"	ENGINE TR.
ENGINE & TENDER	189,000	TRAILER TR.	37"	TENDER TR.
MAIN DRIVERS	10 1/2 x 12"	HEATING SURFACE, SQ FT.		NO. DIA LGTH.
OTHER DRIVERS	9 1/2 x 12"	FIREBOX	217	
ENGINE TRUCK	6 x 12"	ARCH TUBES	84	4
TRAILER TRUCK	8 x 14"	FLUES	2112	38
TENDER TRUCKS	6 x 11"	TUBES	985	219
COAL CAPACITY OF TENDER, TONS	14	TOTAL SUPERHEATING	3,398	2"
WATER CAPACITY OF TENDER, GALS.	9,000	TOTAL EQUIV	866	
			4,697	

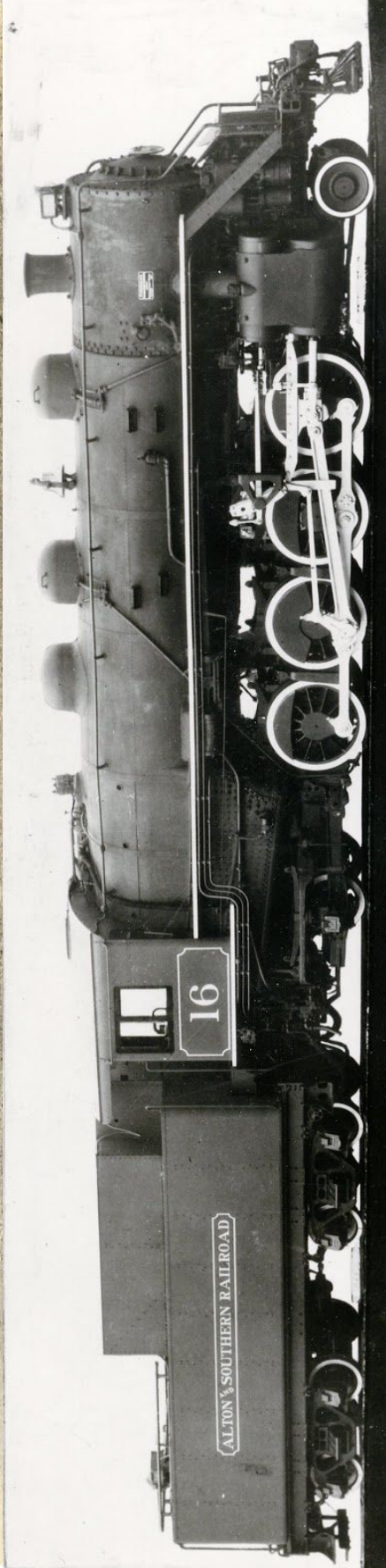
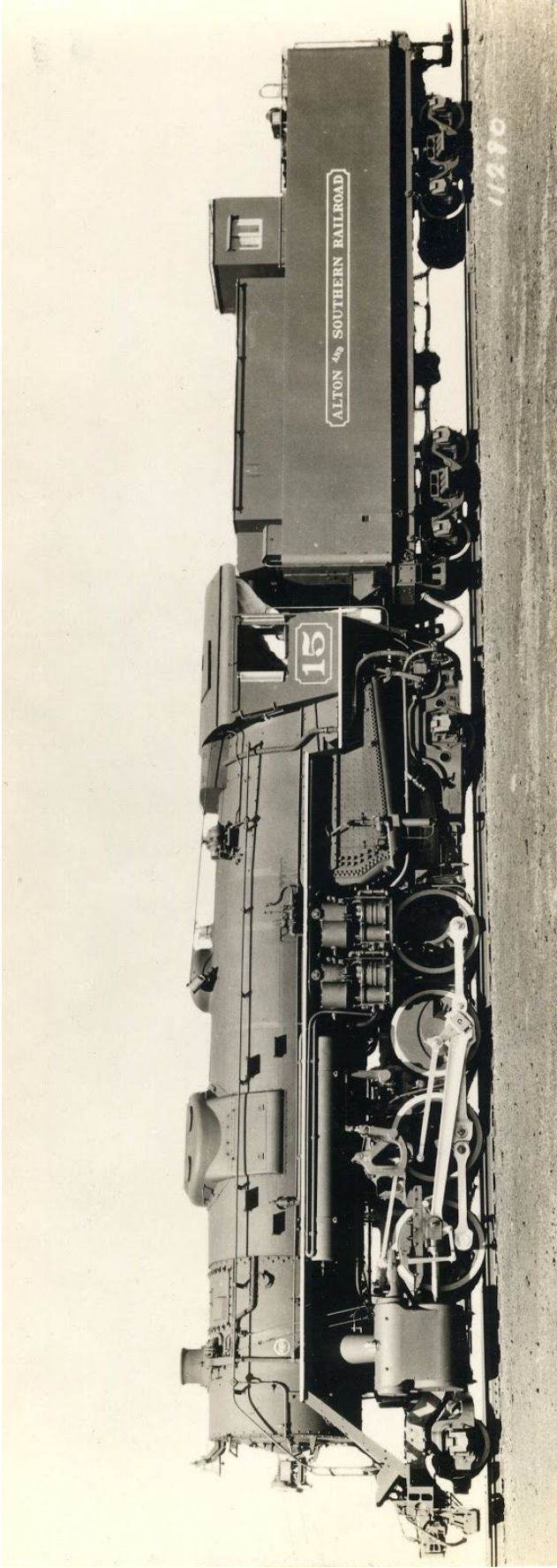
Diagram of St. Louis and Ohio River No. 2 (Previously A&S No. 14) from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



Although the locomotive was assigned to the StL&OR, it was still very much an Alton and Southern locomotive. Shown here after being repainted from A&S No. 14 to StL&OR No. 2. Photo from the collection of Sam Aufmuth.

increase efficiency. The first of these two locomotives was bought from the Baldwin Locomotive Works in September of 1936. This was No. 15, which was the largest and most powerful road locomotive operated by the A&S at the time. No. 16 arrived one year after No. 15, but was a much lighter locomotive built by the Schenectady Works of ALCO. Although the design was inspired by No. 15, No. 16 was actually a closer relative to the smaller ALCO-built Mikados bought by the A&S in the 1920's.

The Alton and Southern purchased yet another Mikado just after they placed the order for No. 16 in early 1937. This locomotive, No. 17, actually arrived on the A&S before No. 16 did, entering service in June of 1936. No. 17 had been passed around to quite a number of railroads before coming to the A&S. Originally built as a 2-8-0 Consolidation by ALCO in April of 1906, the locomotive originally worked on the CCC&StL, but was rebuilt by ALCO's Brooks works in 1915, emerging as a 2-8-2. The locomotive was later sold by the CCC&StL to the New York Central in 1936, and was quickly bought by the A&S just a few months later in 1937 for the sum of \$7,600. The locomotive spent only four years on the A&S, and was eventually replaced with larger, more powerful secondhand Mikados early in World War II. By March of 1942, No. 17 was working on the Tennessee Central as No. 730, and was scrapped early in that railroad's dieselisation movement following the war.



Builders Photographs of Alton and Southern No. 15 and 16. They were the last two locomotives bought new by the A&S. Both images courtesy of the National Museum of Transportation archives.

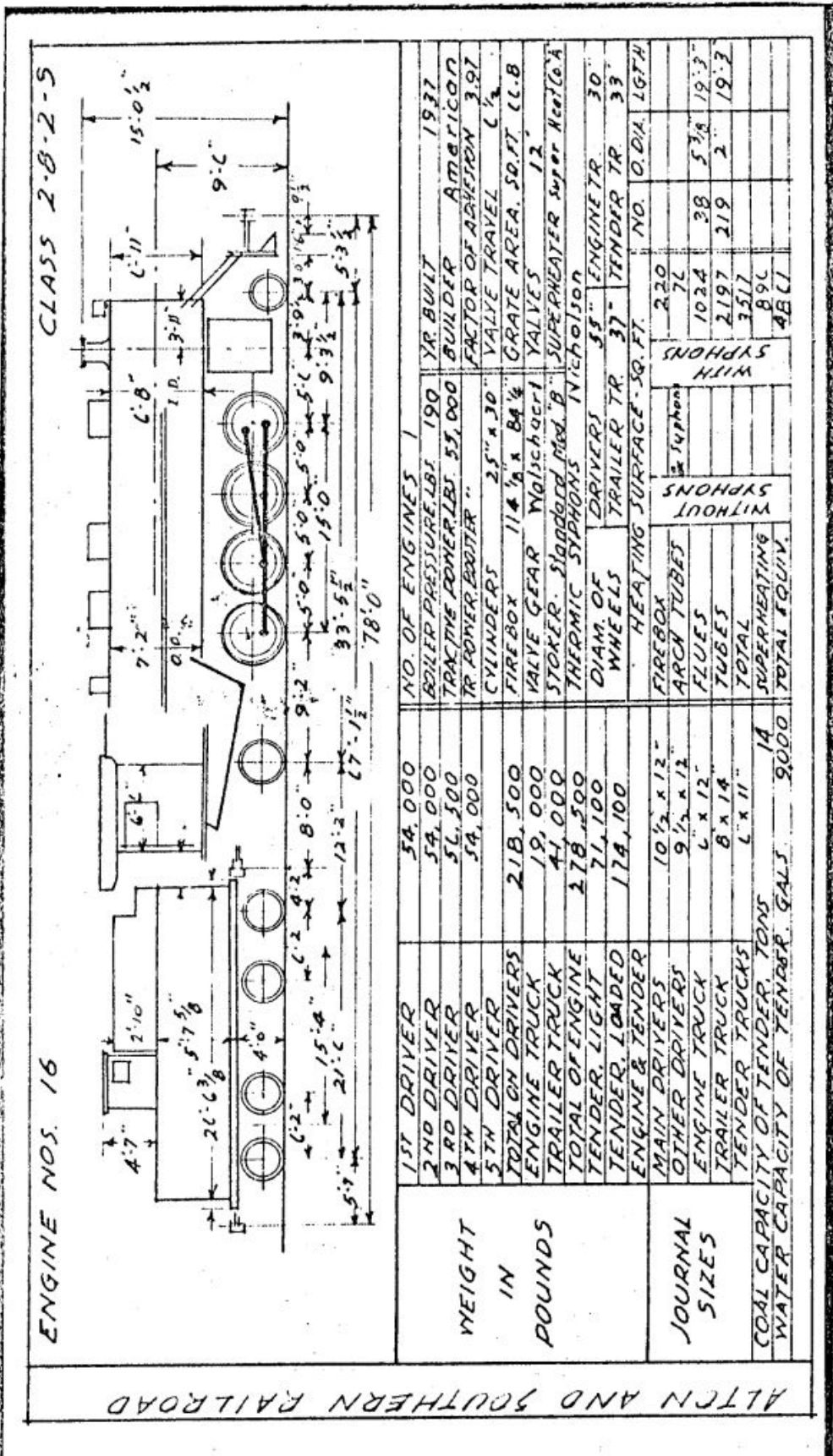
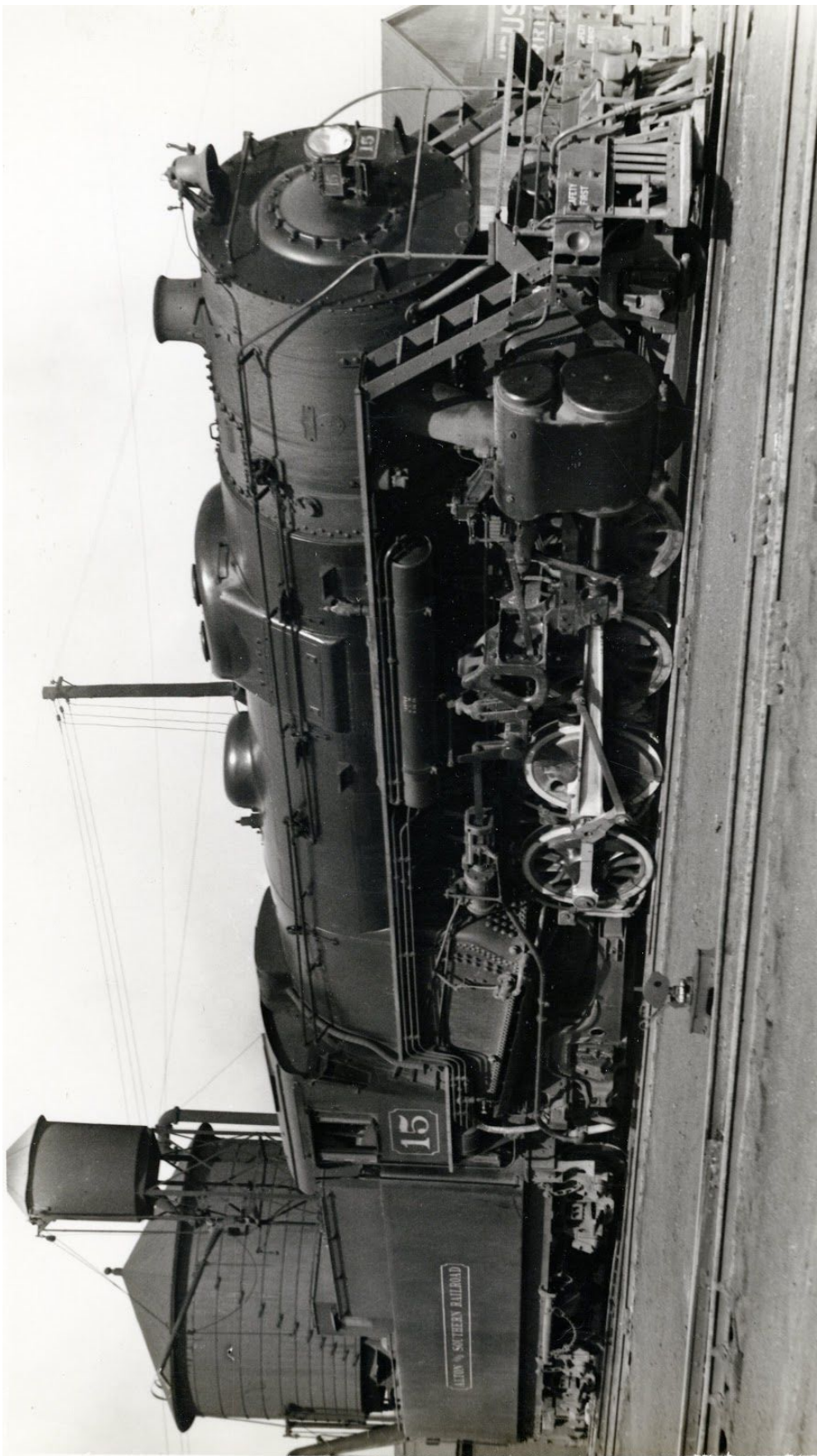
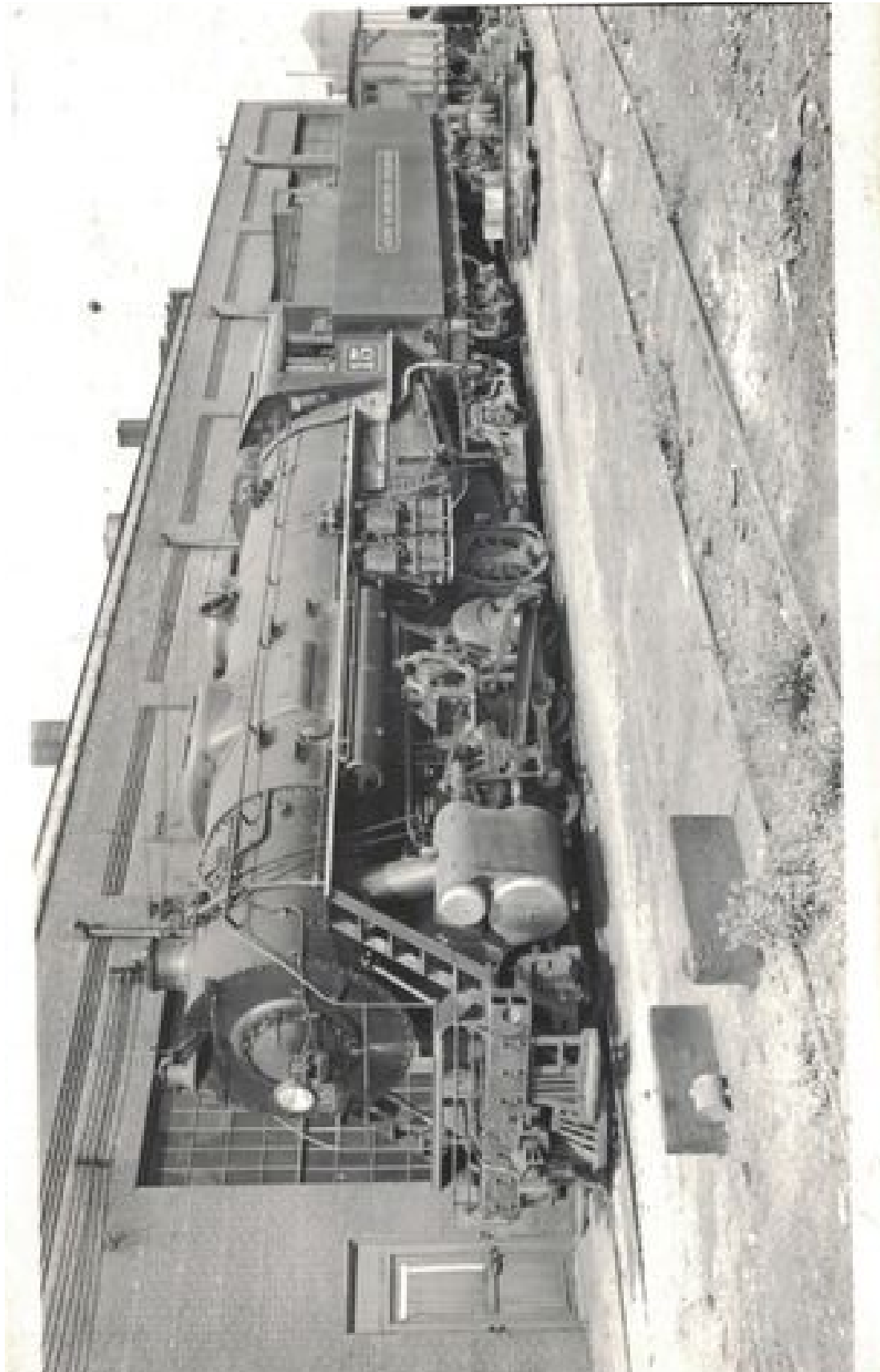


Diagram of A&S No. 16, from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



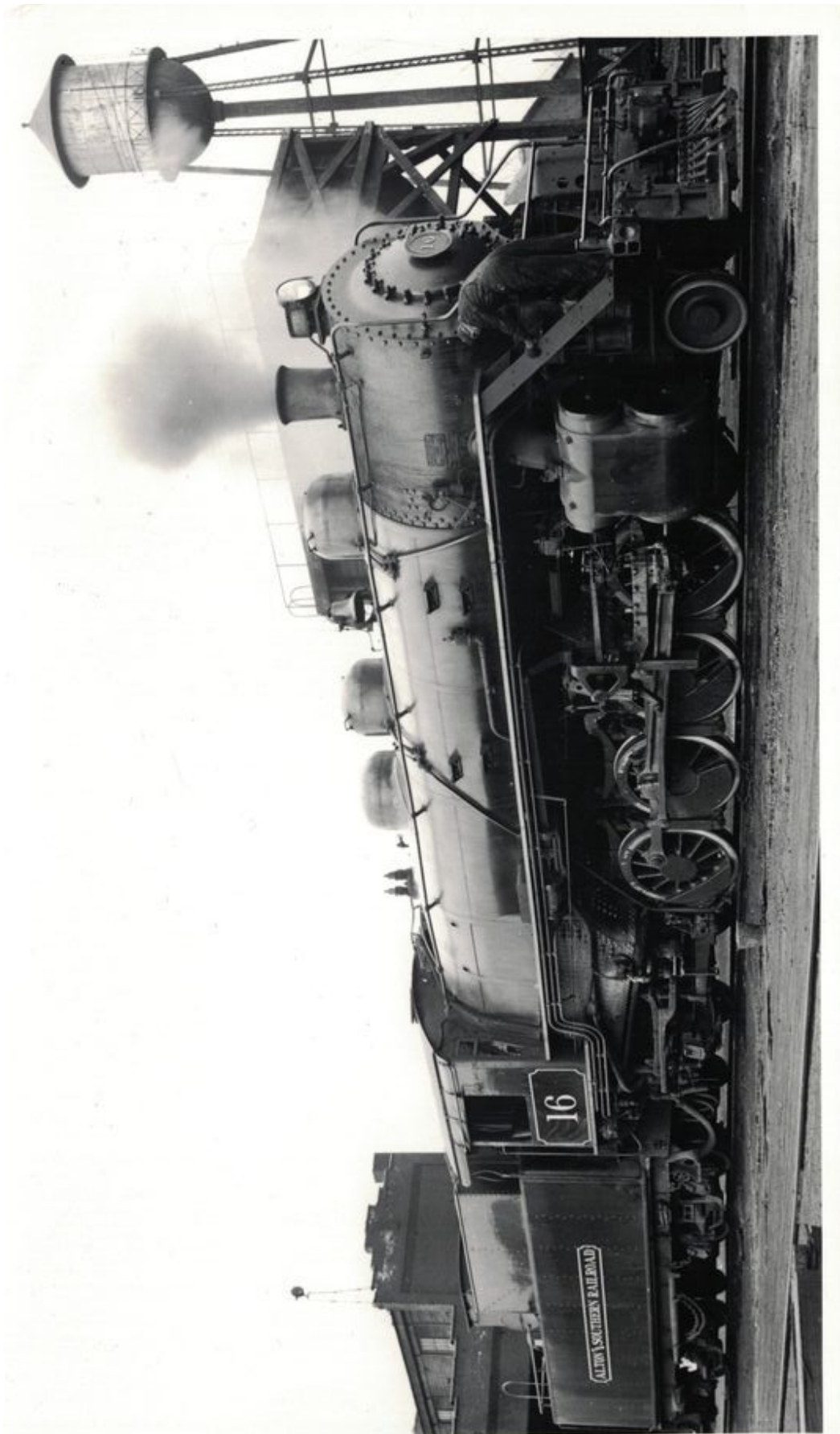
A&S No. 15 was only four months old when captured in this photo at the A&S water tower on February 11th, 1937. Image courtesy of the National Museum of Transportation archives.



No. 15 sits outside of the A&S backshop in this mid-1930's photo.
Image from the collection of David Huelsing.



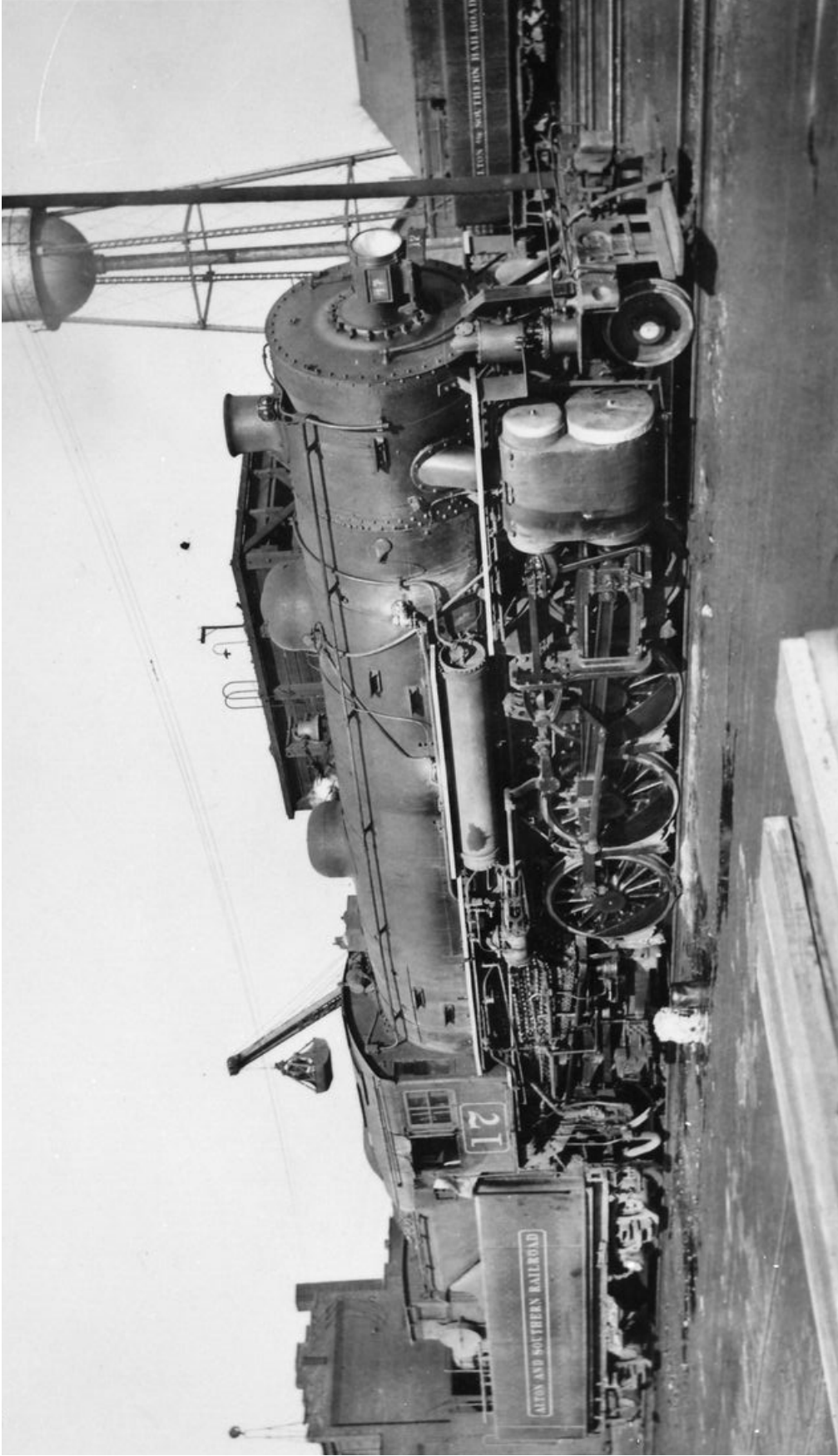
No. 15 goes about its duties sometime after the end of World War II.
Image from the collection of the Missouri Pacific Historical Society.



An A&S employee cleans and services No. 16 at the A&S locomotive facility sometime in the late 1930's. Photo from the collection of David Huelsing.



A&S No. 16 gets ready to pick up a string of cars in this photo taken after World War II. Image from the collection of the Missouri Pacific Historical Society.



Mikado No. 17 didn't spend much time on the A&S, and so photos of this locomotive can be hard to find. It's even more difficult to imagine that this engine was once a 'small' consolidation. Image from the collection of the Missouri Pacific Historical Society.

As the United States began to recover from the Great Depression, the A&S purchased several more 2-8-2 locomotives. These, like all steam power acquired by the railroad after No. 16, were secondhand. Secondhand locomotives were far cheaper than those built new, and were only bought by the A&S in World War II because the War Production Board restricted the number of diesel locomotives that were built during that period. These secondhand Mikados were bought in two batches by the A&S. The first batch was composed of eight identical Mikados that came from the Wabash between 1940 and 1942, and were given numbers 18 through 25 on the A&S. These locomotives were originally built in 1912 and were all ALCO products, with the exception of No. 19, which originated from Baldwin. These reliable locomotives were enough to carry the A&S almost all the way through the traffic boom of World War II, but in the peak years of 1944 and 1945 proved to not be quite enough.

It was at this time, just before the end of World War II, that the Alton and Southern purchased the second batch of secondhand Mikados. These would be the last of their steam locomotives, and came from the Delaware Lackawanna and Western. Given numbers 26 and 27, these Mikados were by far the largest locomotives ever used by the A&S when they arrived in March of 1945. They had been built by ALCO's Brooks works in 1924 for the DL&W. They were also one of only a few locomotives left that were equipped with Elvin mechanical stokers. The unusual stoker system was introduced in the early 1920's and used two arms to fling coal across the fire, rather than more typical steam jets. They were thought to more closely mimic the firing techniques of humans, which in certain cases were actually more efficient than mechanical stokers. The Elvin stoker, however, was complicated and prone to jamming, and soon fell into disfavor among most railroads. Almost all were replaced by more popular stoker systems, although a few examples were used into the mid-1940's. A&S No. 26 and 27 were two of these rarities, until they were scrapped along with most of the Alton and Southern steam power in 1948 and 1949.

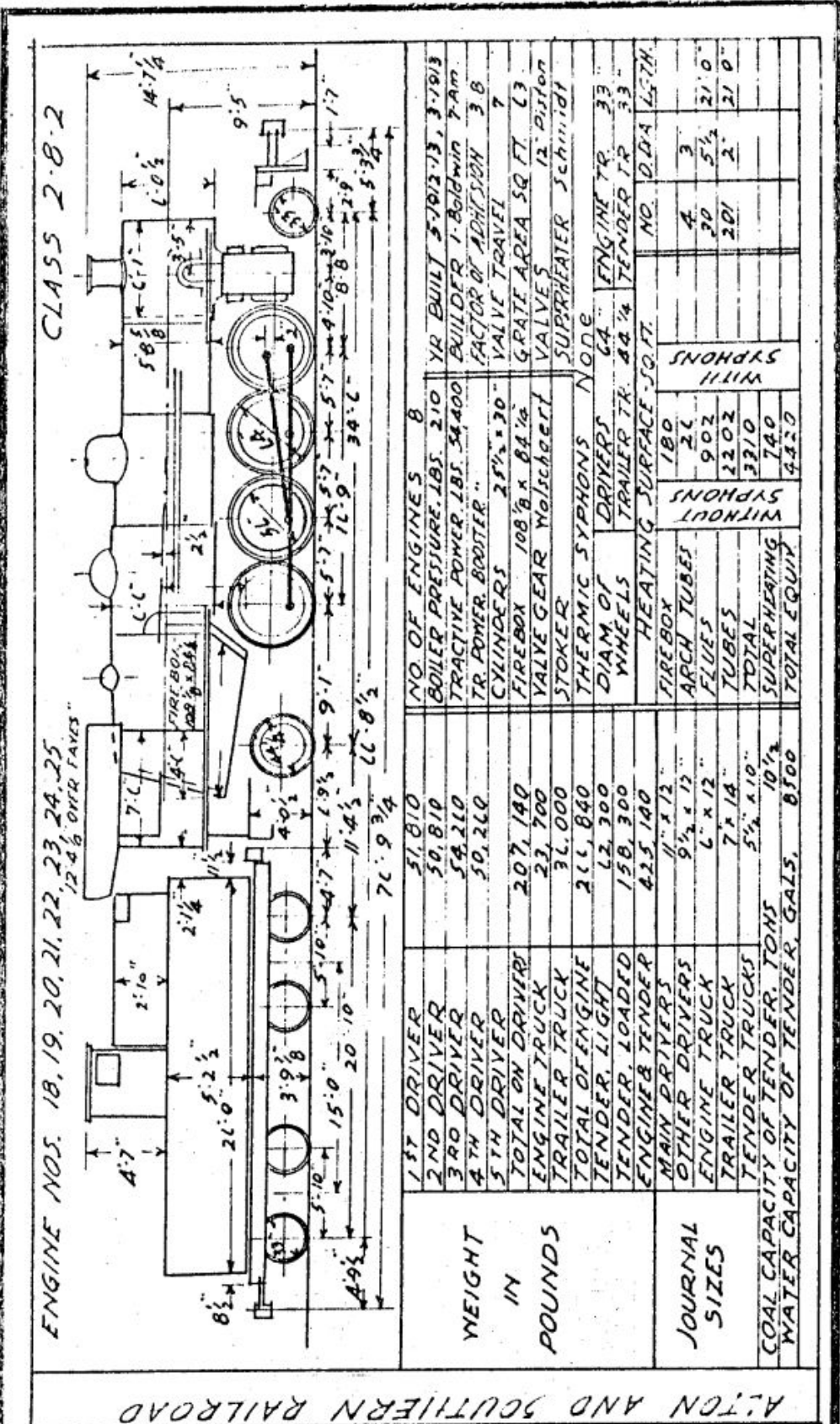
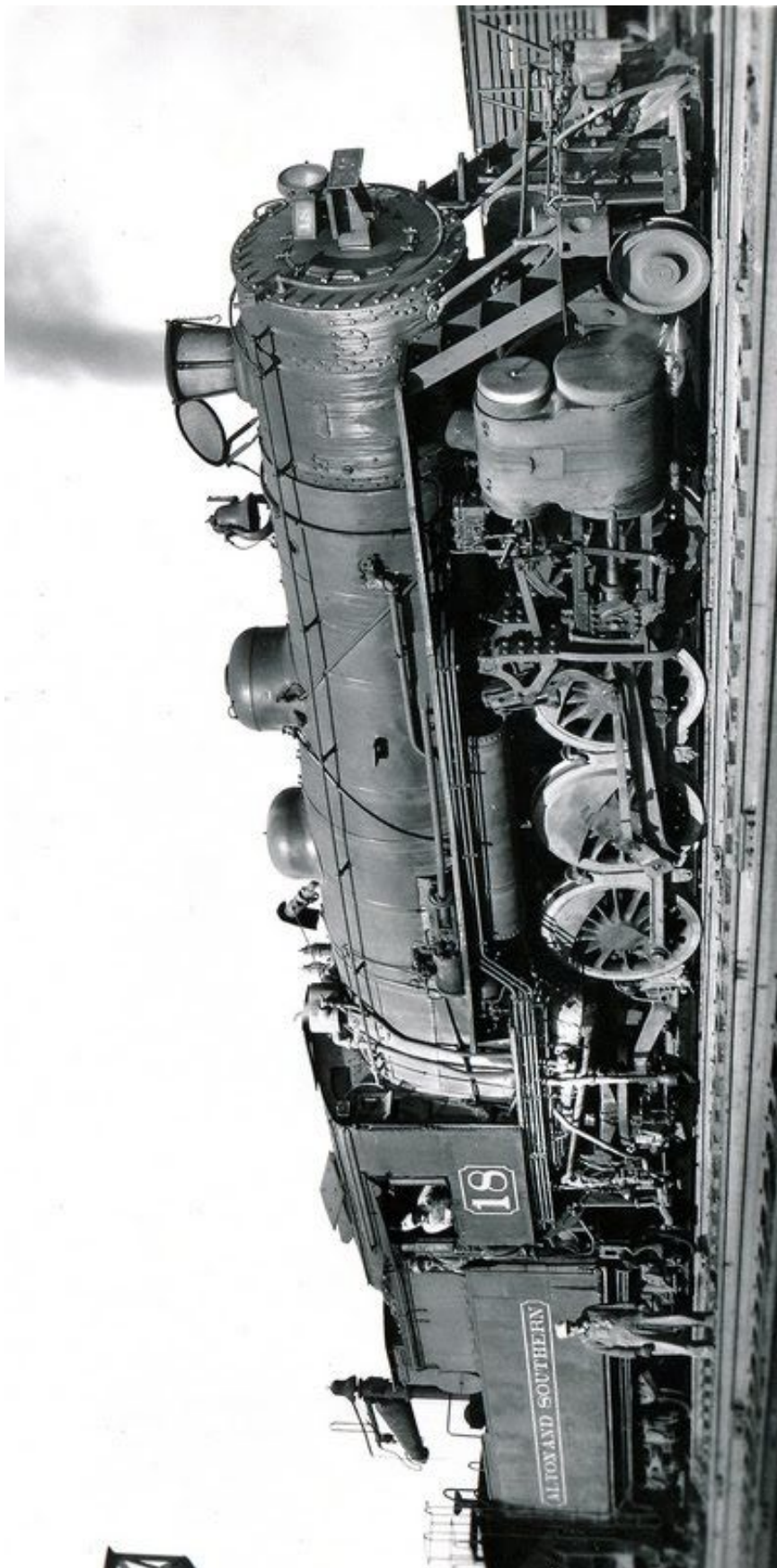


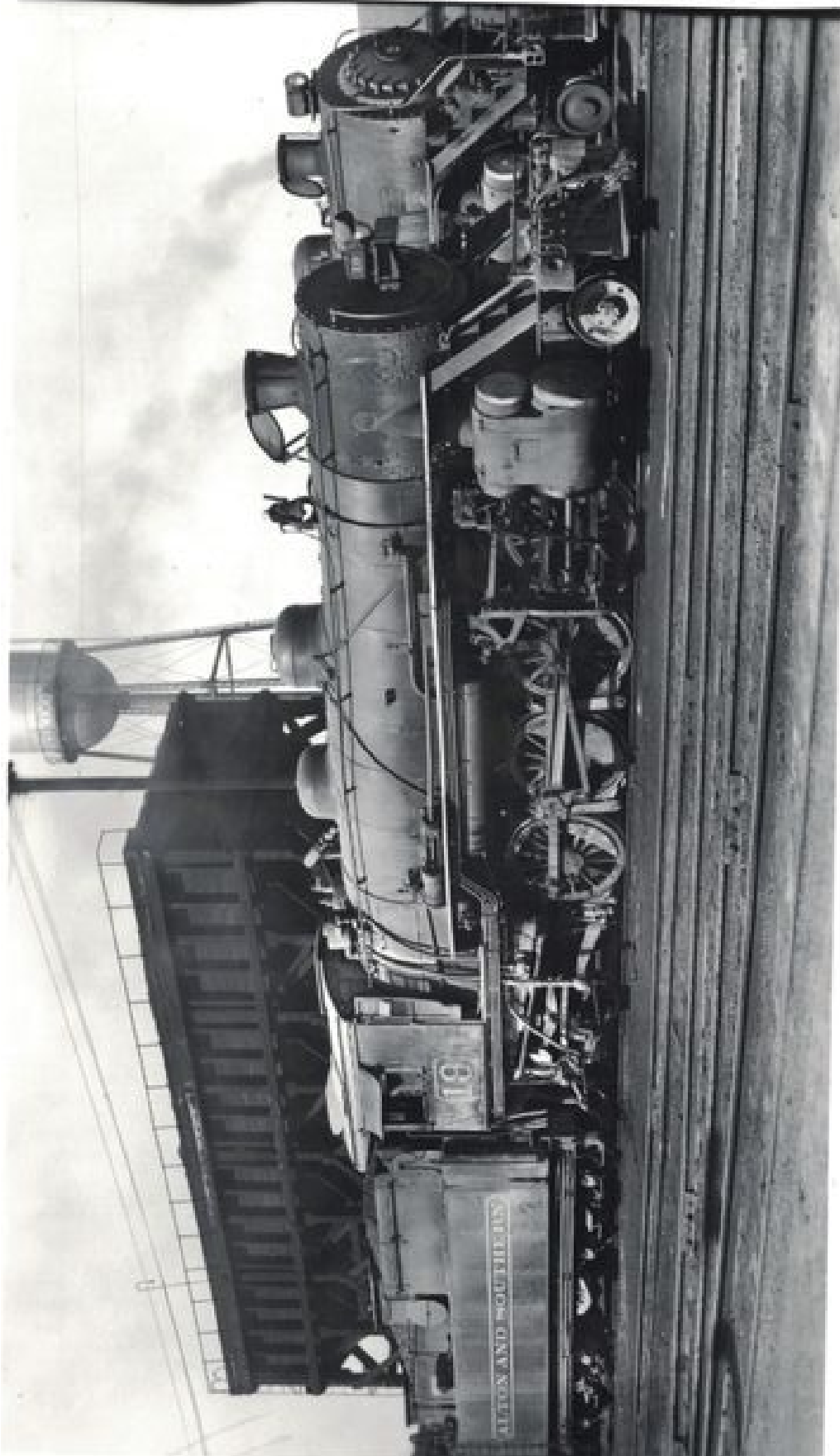
Diagram of A&S No. 18-25, from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



No. 18 was the first of eight mikado locomotives bought from the Wabash Railroad by the Alton and Southern. It is shown here towards the end of steam on the A&S. Image from the collection of the Missouri Pacific Historical Society.



The crew of A&S No. 18 pose with the locomotive sometime in the mid-1940's.
Image from the collection of Sam Aufmuth.



A&S No. 19 poses next to StL&OR No. 2 at the A&S locomotive facility sometime after the end of World War II. Image from the collection of David Huelsing.



A&S No. 20 poses next to StL&OR No. 2 at the A&S locomotive facility sometime after the end of World War II. Image from the collection of David Hueising.



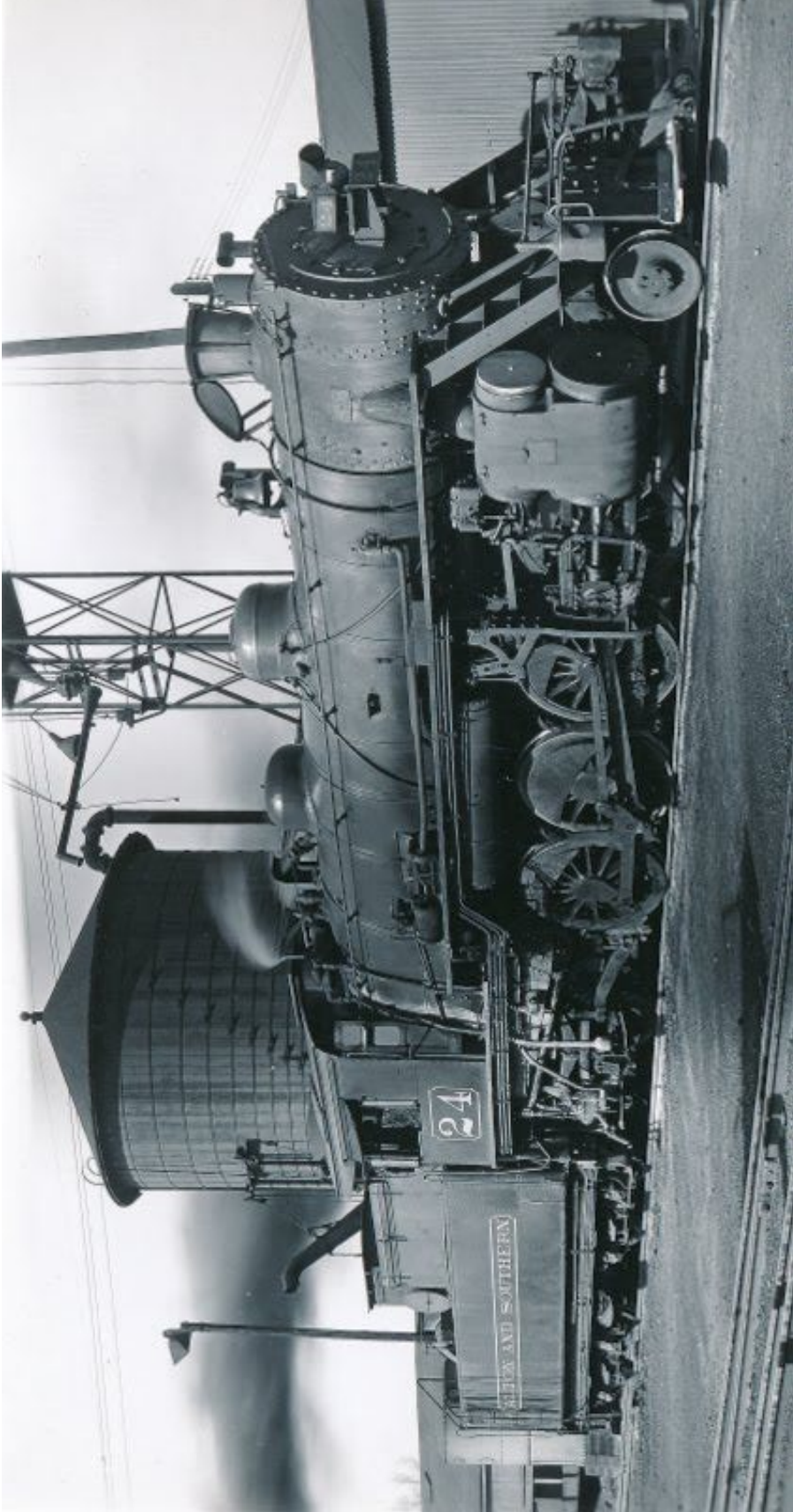
When steam locomotives were retired, they were sent to the “dead line” in a remote corner of the yard. Here they waited until there was either a traffic increase that would necessitate their resurrection, or the scrapper’s torch came to do its job. Here A&S No. 21 awaits its fate in the dead line. Image from the collection of the Missouri Pacific Historical Society.



Here mikado No. 22 is in the same situation No. 21 was in the last image. In this photo it sits just in front of No. 21 on the dead line. Image from the collection of the Missouri Pacific Historical Society.



Yet another A&S steam locomotive is sidelined as No. 23 is placed into storage with the coming of new ALCO diesels. Photo from the collection of the Missouri Pacific Historical Society.



Here A&S No. 24 is found at the water tower on a blustery winter day sometime in the mid-1940's. Image from the collection of Sam Aufmuth.



No. 25 sits just outside of the A&S enginehouse in this photo taken during the mid-1940's. Image from the collection of Sam Aufmuth.



No. 25 leads a long line of engines being serviced and watered in the 1940's.
Image from the collection of the Missouri Pacific Historical Society.



In this post World War II photo, No. 25 carries the final paint scheme applied to A&S locomotives. A&S No. 12 was painted this way before it was donated to become the only preserved A&S steamer. Image from the collection of the Missouri Pacific Historical Society.

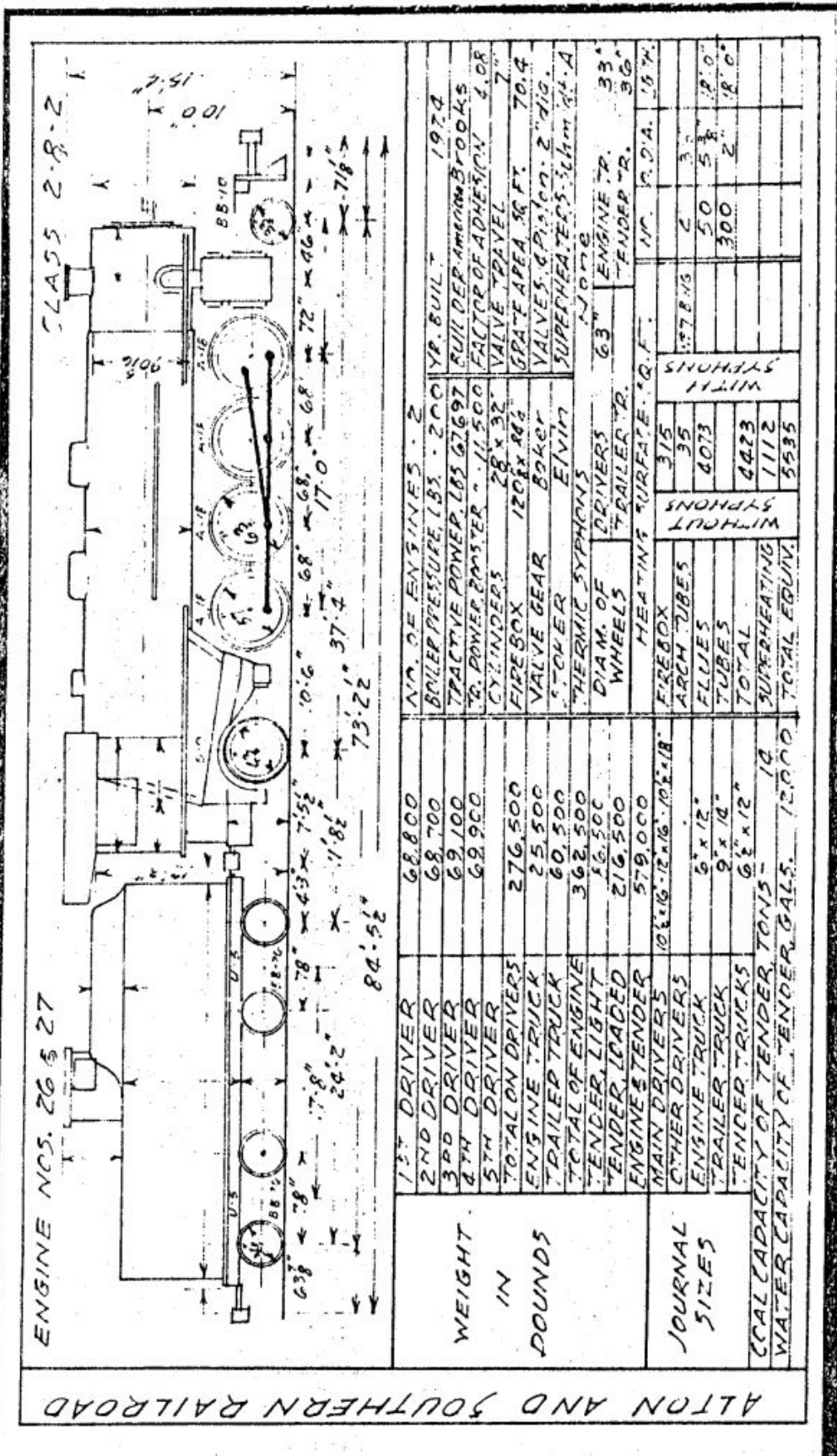


Diagram of A&S No. 26 and 27, from "Alton and Southern Data of Motive Power", provided by the Rail Data Exchange.



A&S No. 26 was the first of two DL&W mikados bought by the railroad close to the end of World War II. Here it is shown in the latter days of steam on the A&S. Image from the collection of the Missouri Pacific Historical Society.



Mikado No. 27 ended an era on the A&S when it became the last steam locomotive acquired by the railroad in March of 1945. Here the locomotive sits outside of the A&S enginehouse. Image from the collection of the Missouri Pacific Historical Society.

Table of Data for Alton and Southern Mikados

Road No.	Type	Builder	C.N.	Build Date	Driver Dia.	Loco. Weight (lbs.)	Cylinder Dim. (in.)	A&S Acquisition Date
2 (Former No. 14)	2-8-2	ALCO-Schen.	67431	February 1928	55 in.	274,500	25x30	Built New for A&S
10	2-8-2	ALCO-Schen.	66461	October 1925	55 in.	275,000	25x30	Built New for A&S
11	2-8-2	ALCO-Schen.	66746	May 1926	55 in.	275,000	25x30	Built New for A&S
13	2-8-2	ALCO-Schen.	67210	January 1927	55 in.	273,500	23x30	Built New for A&S
15	2-8-2	Baldwin	61941	September 1936	57 in.	346,610	25x30	Built New for A&S
16	2-8-2	ALCO-Schen.	69027	September 1937	55 in.	278,500	25x30	Built New for A&S
17	2-8-2	ALCO-Brooks	39971	April 1906	63 in.	285,800	25x32	June, 1937
18	2-8-2	ALCO- Pitts	52454	December 1912	64 in.	266,840	25.5x30	1940, Ex-Wabash No. 2448
19	2-8-2	Baldwin	37858	June 1912	64 in.	266,840	25.5x30	1940, Ex-Wabash No. 2430
20	2-8-2	ALCO- Pitts.	52453	December 1912	64 in.	266,840	25.5x30	1941, Ex-Wabash No. 2447
21	2-8-2	ALCO- Rich.	50647	February 1912	64 in.	266,840	25.5x30	1941, Ex-Wabash No. 2403
22	2-8-2	ALCO- Rich.	50653	February 1912	64 in.	266,840	25.5x30	1941, Ex-Wabash No. 2409
23	2-8-2	ALCO- Rich.	50649	1913	64 in.	266,840	25.5x30	1941, Ex- Wabash No. 2405
24	2-8-2	ALCO- Rich.	50654	1913	64 in.	266,840	25.5x30	1942, Ex-Wabash No. 2410
25	2-8-2	ALCO- Rich.	50651	1913	64 in.	266,840	25.5x30	1942, Ex-Wabash No. 2407
26	2-8-2	ALCO-Brooks	65410	1924	63 in.	362,500	28x32	March 1945, Ex-DL&W No. 2143
27	2-8-2	ALCO-Brooks	65416	1924	63 in.	362,500	28x32	March 1945, Ex-DL&W No. 2149

-The End of an Era-

The Scraping of A&S Steam

Due to the small size of the A&S locomotive roster, the Alton and Southern was among the first wave of railroads to complete the phasing-out of steam in the last few years of the 1940's. In 1947 the Alton and Southern purchased eleven ALCO RS-2 diesel locomotives. Numbered A&S 28-39, they were the first major order the A&S had made in an effort to replace their steam power. Starting with switching locomotives and some of the older mikados, the first steam locomotives began to go into the deadline at the A&S terminal. Some of these would be fired up to help in high-traffic times before going back into storage, but this became a more rare occurrence after a couple of extra RS-2s arrived from ALCO in 1948. By that time, only a few of the ex-Wabash mikados and No. 26 and 27 could still be regularly found in active service. As the weather began to grow cold in 1948, so did the steam locomotives, as even more were retired and the first of them were cut up for scrap. 1949 marked the end of the 38 year long reign of steam on the A&S, for it was the first time the railroad began operations completely free of steam power. Over the next two years, signs of the steam fleet slowly began to disappear. Once common parts of any railroad became memories of the past on the A&S as water and coaling towers, among other items, were demolished. By 1950, all of the steam locomotives had been scrapped (with the exception of A&S No. 12), and only ghosts what had been the pride of the A&S remained.

The following pages show the last signs that steam once ruled on the A&S for nearly 40 years.



Once the most modern locomotives available, mikados No. 15 and 16 are not long from being cut up for scrap. Note the various parts in the foreground, from other A&S locomotives that have already been scrapped. Image from the collection of the Missouri Pacific Historical Society.



No. 15 sits on the scrap line, tender listing to one side. The gondola on the right will soon be filled with pieces of the 1930's Baldwin. Image from the collection of the Missouri Pacific Historical Society.



Even after steam had disappeared from the rails of the A&S, ghosts of what had been were still easy to find. Here two cabs from scrapped A&S locomotives are used as sheds in the East St. Louis yard. Image from the collection of the Missouri Pacific Historical Society.



A lone ALCO makes its way along the A&S right-of-way. In the background an old water tower stands, evidence that steam locomotives once ran here. Image from the collection of the Missouri Pacific Historical Society.



Just as the sun sets, ending a winter day on the Alton and Southern, so does this history of A&S steam power. Image from the collection of the Missouri Pacific Historical Society.