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isopropyl alcohol to wipe down parts, mostly to get rid of finger oils and contaminants. Alcohol cuts oil and residues, and does not leave any residual coatings behind. Cast resin parts and certain handmade/small production parts may have mold release agents on them, and should be washed in warm soapy water and followed up by an alcohol wipe. There's nothing worse than going to paint and having adhesion problems, "fisheye," and silicone infection on the parts.

Al Carter: I thought I'd add my method of cleaning resin parts, learned from a local car modeler who paints a lot of 1/25 scale resin model cars. He scrubs the parts with a toothbrush and Westby's Tire and Whitewall Cleaner, rinses thoroughly, and airdries the parts. Once dry, primer on resin is essential. I've used this product on several HO resin structures, and a lot of 1/87 resin vehicle kits.

Join the discussion at mrhmag.com/node/30784.

Dating rolling stock

Q. I'm planning an HO layout that will feature the Harlan & Hollingsworth rail car shops at Wilmington, DE circa 1925. It will include passenger and freight operations. When I look at freight rolling stock in stores or online, I really have no idea what is or is not close to prototype for the time. I want to know that any stock I run is close to the right period – not put into production 30, 40, or 50 years later. Most manufacturers don't include this detail on the packaging. Any suggestions for finding period-specific stock? Especially freight?

—A. Hansen

A. Ed: The first step is to become familiar with the rolling stock of the era – there is not a lot of material published on railroading in



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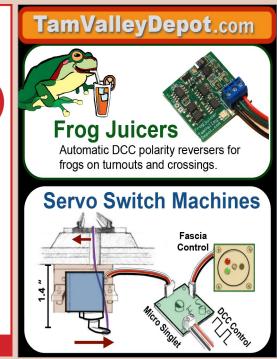
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the first quarter of the 20th century, but it's out there. Look at old postcards, books, and magazines – anything that has a reliable date on it. Take mental notes, or keep a notebook on the size and construction of cars and engines.

Irish Rover: Accurail's website includes the build date of each car. Some will have a couple of build dates, but if you telephone to order, instead of ordering online, the folks there are wonderful, and will get you cars with the right date. Very helpful people. Good to see Made in USA! accurail.com.

Eric Hansmann: I enjoy sharing rail info from the 1920s, so modelers can understand the railroads and industries of that decade.

As far as tips for dating rolling stock, start keeping notes. That is how the '20s guide at <u>designbuildop.hansmanns.org/a-guide-to-1920s-era-ho-scale-plastic-freight-cars</u> started. As more modelers inquired about the info, it became important to post it as



3. Accurail's new Fowler boxcar kit is a good example of a 1920s freight car, with wood sides and ends, stem-winder brake wheel, and a relatively low interior height. *Accurail photo*

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a resource. Invest in a mid-1920s Official Railway Equipment Register (ORER) so you gain an understanding of the in-service freight cars on several railroads. I summarized the 1926 Wheeling & Lake Erie fleet when that was my focus. See designbuildop.hans-manns.org/wle-freight-car-fleet-of-1926. I'm halfway done with a B&O version and hope to post that soon. The larger the railroad, the more detailed the summary.

Your interest in Harlan & Hollingsworth is interesting. By the 1920s, the company seems to have been a subsidiary of Bethlehem Steel, and mainly a shipbuilder. Check out the car builder history at midcontinent.org/rollingstock/builders/harlan-hollingsworth3. httm for more. There would be lots of interesting inbound loads to a shipyard but few outbound shipments.

Become a sponge for information and take notes. I find research into the freight cars of the 1900-1930 years to be fascinating. Feel free to contact me directly through the ID on my MRH Forum posts or via a comment on my blog. The 1920s are a fascinating era for rail and industry that have had little coverage in the hobby press. My railroad modeling blog is at designbuildop.hansmanns.org.

Dave Husman: If it's not a USRA design, or has an internal height (IH) of more than 10 feet, it's probably too new. Look at the Westerfield Models website at <u>westerfieldmodels.com</u>. He specializes in your era and gives build dates and a service time span for the models. Even if you don't want to build resin kits, they will show you what the cars look like. If a model has Andrews trucks, it's probably in your era. The biggest and newest hopper cars you would have are the Athearn offset quads. The offset and rib-side twin hoppers would be appropriate. Ironically, the composite wood-side hoppers like the Athearn one are too new for your era



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– they are 1940s wartime cars. Except for hoppers, all steel cars would be brand new. Gons would be mostly in the 40- and 46-foot length. There would be a few 52'-6" and very few 60- to 65-foot cars. Steel cars would be riveted and not welded.

Highway70: The Westerfield site and Hansmann's site are excellent but also check the dates printed on the sides of the cars. Even if the car is correct for your era, it may have a paint scheme that is too new. If the date is too new, further research is necessary. A car with an out of period date would be acceptable if the paint scheme is otherwise correct and the date doesn't bother you. Or you can change the date. Some model manufactures may use fictional dates, but this is less prevalent than it used to be.

Look at prototype photos in books and online. While many are not dated, it may be possible to read the dates on the cars with some magnification.

Gary: I enjoy reading Eric's blog, and anyone interested in modeling the 1920s or 1930s should check it out. I also look at <u>steamerafreightcars.com</u>, but it doesn't seem to be active anymore. Still tons of interesting data.

Ironrooster: *The Model Railroader's Guide to Freight Cars* by Jeff Wilson (out of print) could help. It covers WWI to the present.

Keep up with the 1920s discussion and add your own experiences at mrhmag.com/node/30709.

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Rolling stock test plank



4. A test plank gathers all the tools and tests needed to check a car or locomotive before it is handed off to operating crews on the layout, and is useful in any scale and gauge. Tethering the NMRA gauge keeps it from walking away. Franck Combe photo

I have been a model railroader for 10 years working with narrow gauge and in various scales: 009, Gn15, and 7/8th. I like to scratchbuild locomotives, rolling stock, and buildings. I have already built six layouts. At my railroad club, RMB of Gennevilliers near Paris in France, we are starting to expand an American HO layout based on contemporary Chicago.

I decided to build a test plank for locomotives and rolling stock. It's my second plank and more sophisticated than the

first one. The plank is long enough to easily accommodate cars and locomotive sets.

The MDF plank is equipped with a Kadee coupler height gauge to test the couplers, a Kadee uncoupling magnet under the track to test the couplers in real situations, and the NMRA standards gauge to accomplish the various tests.



A 1920s FREIGHT CAR FLEET YOU CAN MODEL THE CHICAGO & ALTON RAILROAD

By Ray Breyer

All images Author's collection unless noted.



C&A 17334, a Harriman-standard boxcar, is surrounded by a sea of Northern Pacific cars in Spokane in the late 1920s. Although small, their fleet of cars did touch every corner of the country.

Northern Pacific company photo.

The Chicago & Alton Railroad (C&A), more commonly known as just "The Alton", was at one time a well-known railroad with a reputation for fast, comfortable, and frequent passenger trains. At the dawn of the 20th Century is was perhaps THE premier passenger railroad of the Midwest, speeding more passengers between Chicago, St. Louis, and Kansas City than all of its competitors combined. While well known for its luxurious mainline passenger trains (the C&A built both the first Pullman sleeper and the first dining car) its Chicago area commuter service was the second largest in the Second City, and the railroad was making large profits from coal hauling from central Illinois mines, from agricultural traffic, through perishable freight to Chicago, and manufactured goods from Chicago, St. Louis, and Kansas City.

And then disaster struck the railroad. E.H. Harriman was convinced that the railroad was undervalued, and could be bought for a fraction of its actual worth. Harriman could snap up the railroad, and then improve the railroad's infrastructure, realize more profits from the railroad, and sell it off for a hefty profit. Harriman bought the railroad in 1906 and proceeded to bury it under a mountain of debt that it could never repay, through a massive program of infrastructure improvements and new equipment purchases that were well in excess of what the railroad could hope to earn over the next decade.

More disasters followed in quick succession. The Rock Island wrested control of the C&A from the Harriman Syndicate in 1914, and convinced the Toledo, St. Louis & Western to assume its debt and control. The Clover Leaf, duped into the purchase by traditionally shady "robber baron" creative bookkeeping, controlled the C&A until 1922, when it defaulted on unrealistically high bond payments. The C&A fell into receivership, where it remained until 1931, when the property was purchased by the Baltimore & Ohio (who wanted the road as a main line to Kansas City). The B&O reorganized the Chicago & Alton as simply the "Alton", but never realized a full merger with the railroad. The B&O finally sold the Alton off to the GM&O in 1947.



C&A 101, a home built 4-4-0 constructed by the road's Bloomington shops in 1881, is seen here in Peoria in July 1927. This 47 year old engine is about to depart with Train #55, a first class passenger run to St. Louis. That this ancient engine is still handling varnish at this late date shows how desperate the Alton was to keep what they had running. The engine would finally be retired and scrapped in 1930. Harold Vollrath collection.

More bad luck came in the form of plummeting online traffic, virtually all of which came from three online sources: agricultural shipments, coal mining, and passengers. As soon as the automobile and the paved road made their appearance in Illinois after 1914, traffic began a quick downturn. Farmers have always hated the railroads (hence the "Grange" movement) and paved roads and pickup trucks meant that they could cut out one to three layers of middlemen by moving their products themselves. Coal mining in Illinois was a principle battleground for organized labor in the early years of the 20^{th} Century, and major strikes in 1919 and 1922 caused a general depression of this principle traffic source for the Alton for most of the decade. Finally, passengers abandoned railroads in huge numbers even during WWI, preferring private cars for commuting and buses for intermediate distance travel. By the mid-1920s the Alton had lost over 30% of their peak passenger traffic, and was considering dropping most of their passenger service in favor of buses.



The C&A was proud of its passenger hauling tradition, and tried everything it could to keep it as a viable source of revenue. Here, C&A 630 departs St. Louis with train #4, on its way to Chicago.

It'll reach the Windy City in seven hours. Otto Perry photo, Denver Public Library collection.

The railroad's hard luck story meant that the Alton saw a wave of new equipment purchases around 1900, another in 1906-1908 while under Harriman control, a small amount of USRA allocations in 1919, and almost no new equipment again until World War Two. The Alton had one of the oldest average freight car rosters in the United States. The railroad knew that they couldn't afford new freight cars, and the equipment they did have survived far longer than it should have, being rebuilt several times by the railroad's shop forces in Bloomington IL.



This late 1920s view of the C&A's car shops in Bloomington shows over 50 boxcars being stripped and completely rebuilt from the frame up. Most of the cars seen are 1913-built Harriman designed cars, which are getting new side sheathing and new corrugated steel ends. Railway Age Magazine.

The Alton's antique rolling stock roster is good news for 1920s and early 1930s modelers, since it allows them to accurately run cars built 25 to 35 years earlier, and which were long gone on most Class One railroads. The Alton was still running tiny, all wood 34-foot boxcars when other railroads were building 50-foot long, all steel cars! And while the railroad had a small overall car fleet (14,070 cars in 1926; the 45th largest fleet in North America), the Alton still served some of the largest industrial centers in the Midwest, so its cars roamed across the entire country, and even into Canada.



C&A 40288, a 1908-built steel gondola, and 43606, a 1924-built USRA gondola "clone", are seen here at an online mine in 1929. The USRA gondolas and their clones were the newest, most modern coal-carrying cars the Alton rostered until 1944. The engine is B-1 class #15, built in 1896!

THE ALTON'S FREIGHT CAR FLEET OF 1926

Let's take a look at what the C&A was running, by examining their fleet as it looked near the end of 1926. According to the road's ORER listing they owned 14,070 revenue freight cars: 4,134 plain boxcars, 722 auto and furniture boxcars, 2,112 gondolas, 1,262 stock cars, 490 flat cars, 355 hoppers, and 184 reefers, all broken down into 49 different number series. Overall, it was a tiny freight car fleet, but it had to be, simply because its traffic was drying up.



A long line of C&A boxcars, mostly Harriman-designed cars, sits idle in Bloomington in 1930. The Depression's severe traffic downturn and picky shippers wanting "new & clean" cars spelled the end for the bulk of the Alton's freight roster, most of which wouldn't survive to WWII.

Pantagraph photo, McLean County Museum of History collection.

During the Harriman years traffic was booming: coal was up, grain was up, fresh produce was up, and live animal shipments were up. But starting around World War I all of that changed. Although the Alton made it to Kansas City, it was really an Illinois railroad at heart. And Illinois embraced the automobile and paved roads very early on; the "Good Roads Movement" started in 1913, and by 1914 Illinois was paving parts of the new Lincoln Highway. By the early 1920s, the Alton was losing short and intermediate haul traffic at an alarming rate, and nearly half of their livestock and LCL traffic had dried up by 1925. Worse yet, their two most profitable businesses, coal and passengers, were in a tailspin. People were moving by private car and bus, to the point that more than half of the St. Louis to Chicago traffic had disappeared by 1927 (for all railroads, not just the Alton). And Illinois coal was in a decline period, with unions fighting owners to keep rates and paychecks as high as they were during WWI. Traffic was declining at nearly 10% a year as online mines were closed or slowed.





The changing traffic of Illinois: downtown Mattoon in 1913 (left) sees nothing but horse drawn vehicles, while in mid-1918 (right) there's exactly ONE horse drawn vehicle, and 50 automobiles, on the same stretch of road. The car replaced animals quickly in Illinois, and that spelled trouble for railroads in the area.

Illinois Central company photos.

Because of declining traffic the railroad didn't need a lot of new freight cars, and couldn't afford them if they needed any. After the Harriman years the succession of railroads that were interested in buying the Alton were interested in their connection to Kansas City and western bridge traffic, not in potential online Illinois traffic. The railroad bought a lot of Harriman-Standard cars between 1906 and 1909, didn't see much in the way of new equipment until the USRA years (1,000 antique design wood gons in 1917, and 500 USRA gondolas in 1919), and not again until 1924, when the road bought another 1,250 USRA gondolas and 250 single sheathed automobile boxcars to cover about the only growth industry on the line. Everything else rolling was circa 1895-1903!

PLAIN BOXCARS

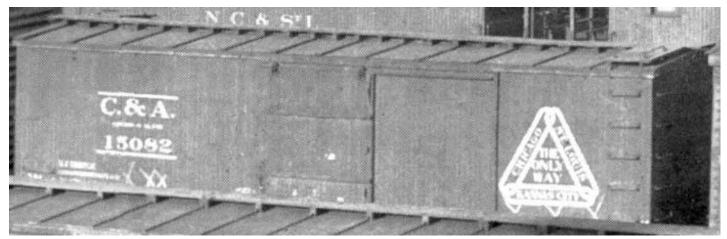
In 1926, the Alton rostered 4,134 XM-type boxcars in nine groups.

13000-13234, ACF 1897, 34'8" OL, all wood, 17 cars. 15000-15999, Mt. Vernon 1899, 34'10" OL, all wood, 517 cars.

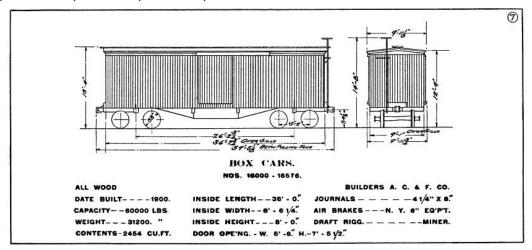


C&A 13130 and 15281 are seen here in Bloomington in 1905. Once the mainstay of the Alton's boxcar fleet, these cars would be overshadowed in a year by a large group of Harriman Standard cars.

Detroit Publishing Co. photo, Library of Congress collection.



By 1926 most of the 13000- and 15000-series cars had been fully rebuilt at least once, as seen here with #15082, which now has new doors and a steel roof.



This 1927 C&A diagram of the 16000-series boxcars shows them to be virtually identical to the 15000-series cars. It's likely that by 1926 most of these cars had also been rebuilt with steel roofs, and probably with steel center sills as well.

17000-17999, ACF 1906, 41'10", double sheathed, steel underframe, 972 cars.

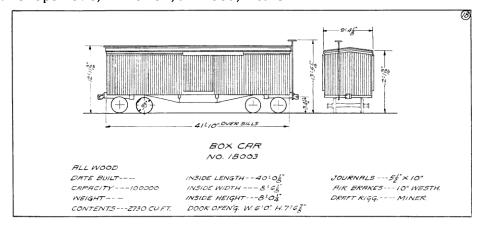


AC&F builder's photo, Al Westerfield collection.



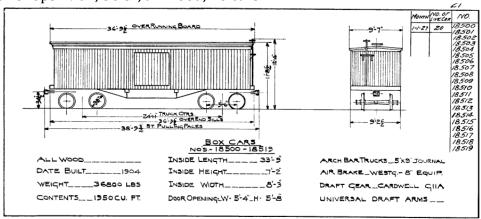
The 1,000 cars of the 17000-series were among the Alton's most modern boxcars until 1924, and the largest single group of "modern" boxcars they owned. The cars were Harriman-Standard B-50-2 type cars, and were rebuilt or modified several times until the 1940s. In 1926 the cars were rebuilt with new steel roofs and corrugated steel ends. Over 950 of the cars received new cast sideframe trucks in the 1930s, preparing for the looming archbar truck ban of 1940.

18000-18001, C&A Shops 1895, 38'3" OL, all wood, 2 cars 18003-18004, C&A shops 1896, 41'10" OL, all wood, 2 cars.



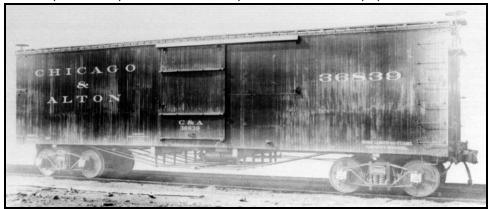
The 18000-18004 group of cars were all home builds from the C&A's Bloomington shops, likely constructed out of spare material left over from various rebuilding programs.

18500-18519, C&A shops 1904, 36'3", all wood, 20 cars.



More home built cars, the 18500-series were a throwback to late 19th Century car designs, and were tiny cars, even by 1904 standards.

36000-37299, ACF 1906, 40'9" OL, double sheathed, steel underframe, 1,198 cars.

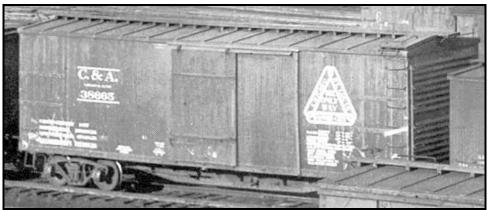


The last boxcars ordered before Harriman took over the railroad, the 36000-series cars were typical of Granger road cars at the dawn of the 20th Century: all-wood, but 40 feet long to maximize capacity for grain movement. Many of these cars had received metal roofs by 1917, but little else was ever done to them.

38000-38999, ACF 1913, 42'1" OL, double sheathed, steel underframe, 967 cars.



AC&F builder's photo, Al Westerfield collection.



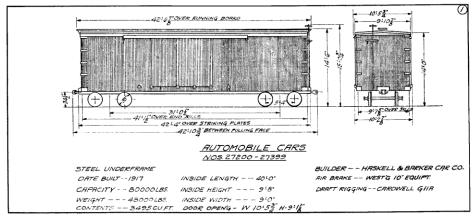
The 38000-series cars were more Harriman boxcars, this time 1,000 cars tacked onto a large order for B-50-6 class cars ordered between 1909 and 1913. More modern than the 17000-series Harriman cars, these cars also seemed to not be as long-lived, as general attrition reduced their numbers faster than the other Harriman boxcars on the roster. As with most of the boxcars in the Alton fleet, these cars were continually rebuilt and improved, receiving new steel roofs, rebuilt doors, and corrugated steel ends by 1926.

AUTOMOBILE AND FURNITURE BOXCARS

Large volume, low weight car ladings out of Chicago and St. Louis were typical of online Alton durable goods shipments, so the railroad maintained a larger than usual assortment of 40 and 50-foot boxcars. As far back as 1880 the road had a fleet of long furniture cars, which also covered shipments of carriages and wagons. By 1901 those cars were also carrying automobiles from Chicago (until 1909 the automobile manufacturing capital of the U.S). By 1917 automobile carrying traffic was more important than wagons or furniture, and most of their cars were busy hauling cars and light trucks around the nation.

The Alton's misfortunes meant that they were stuck transporting automobiles in very old, 1890s designed boxcars. Just before WWI the road did manage to buy 200 new auto boxcars, but these were little different from their 1893 home built cars, with the exception of double doors and a steel center sill. In 1924 the railroad's receivers did allow them to buy 250 single sheathed auto boxcars, since manufacturers were increasingly refusing the Alton's rickety old cars. This allowed the road to hang onto one of the few profitable traffic sources it still had access to.

27200-27399, Haskell & Barker 1917, 42'4" OL, double sheathed, steel underframe, 193 cars.



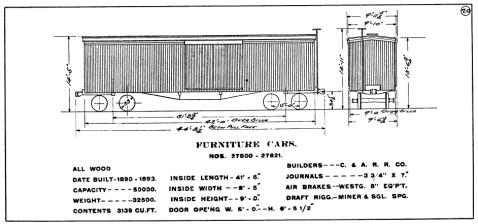
Until late 1924, these were the newest auto boxcars on the Alton. Besides their straight center sill steel underframe, these cars were of all-wood construction.

27400-27499, ACF 1906, 40'9" OL, double sheathed, steel center sills, 88 cars.



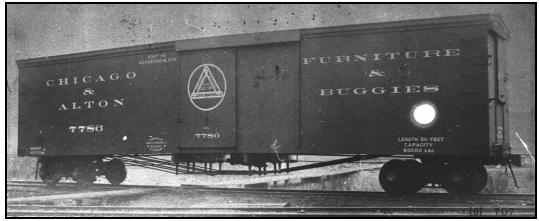
Built in 1906, the 100 cars of the 27400-series were fairly large cars for their time. As was typical for the Alton, the cars were rebuilt in 1914 to extend their service lives, by adding steel center sills and bolsters, a steel roof, and widening the door opening from six to ten feet. AC&F builder's photo, Al Westerfield collection.

27500-27621, C&A Shops 1890-1893, 42'0" OL, all wood, 74 cars.



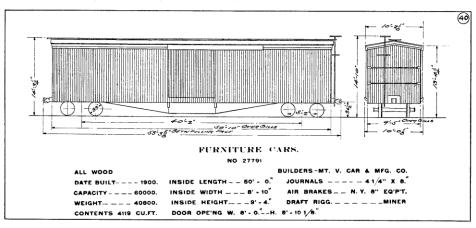
Home built by the C&A's shops, the 122 cars of the 27500-series were all-wood, and never rebuilt with modern appliances like steel roofs or underframes. The cars would all be retired by 1930.

27700-27899, Mt. Vernon Car Co. 1900, 50'0" OL, all wood, 111 cars.



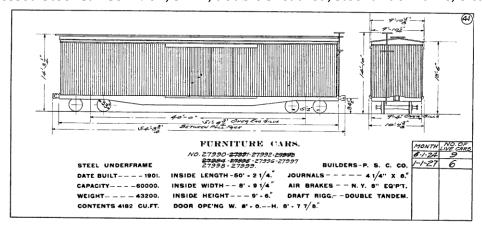
More antique furniture cars, the 27700-series cars (renumbered from 7700-7899 by 1910) had six foot wide doors which would have made loading automobiles into them challenging. Never extensively rebuilt or modernized, these cars would also disappear by the end of 1930. AC&F builder's photo, Al Westerfield collection.

27791, Mt. Vernon Car Co. 1900, all wood, 50'10" OL, 1 car.



This single car was originally identical to the others in the 27700 series, but at some point before 1910 was modified to have an eight foot wide door opening.

27990-27999, Pressed Steel Car Co. 1901, 51'4", double sheathed, steel underframe, 6 cars.



The 10 cars of this series were built before the Harriman takeover of the Alton, and were for a time the most modern equipment on the railroad. 52-foot long cars with Pressed Steel fishbelly side sills were a rarity, as were cars with double four foot wide doors. These cars survived until 1935.

39000-39249, Pullman 1924, 42'1" OL, single sheathed, 249 cars.



After World War One the auto industry boomed, and everyone in the Midwest wanted to own their own automobile. The auto industry was increasingly concerned about the freight equipment that was moving their products, and demanded new, clean cars for loading. That meant that virtually none of the Alton's antique auto or furniture cars were acceptable to shippers in the postwar years. To maintain at least some share of this lucrative traffic, the receivers of the railroad allowed the purchase of new auto boxcars (as well as more drop bottom gondolas to cover new coal mines being built along the line). The cars would eventually become part of the GM&O's roster, and one car, seen above at Union IL, would survive to preservation as a C&IM MOW tool car.

GONDOLAS

Coal was big business for the Alton, with over 55% of all freight revenue coming from moving coal from online mines to power plants and steel mills, mostly in the Chicago area. When the miners were on strike (which was often in the first three decades of the 20th Century), the Alton took major financial hits.

For whatever reason, coal mines in central Illinois preferred shipping in gondolas over hoppers; the IC, CB&Q, C&IM, Wabash, and Milwaukee all maintained large rosters of coal gondolas to cover the traffic. So while the Alton did own a couple hundred hoppers, they also owned several thousand gondolas to handle coal movements.



A long string of empty Alton coal cons wait to return to the coal fields south of Springfield, from the steel plants around Joliet in 1901. Detroit Publishing Co. photo, Library of Congress collection.

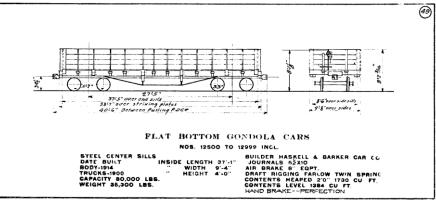
11000-12099, Georgia Car Co. 1899-1900, 36'0" OL, all wood, 549 cars.



The 1,100 cars of the 11000-series were the general workhorse gondolas of the C&A until the 1920s. When built the Alton was also buying all-steel gondolas for the mill trade. These all-wood, flat-bottomed cars were built to a fairly common industry design, and would survive without extensive rebuilding until 1930.

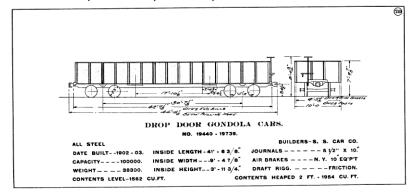
12500-12999, Haskell & Barker 1914, 38'7" OL, Wood body with steel center sill, 470 cars.





The 12500-series cars were virtually identical to the older 11000-series, with the exception of a stronger steel underframe. Many of these cars would survive well into the WWII years before being scrapped.

19440-19739, Standard Steel 1902, 42'7" OL, all steel, 8 cars.

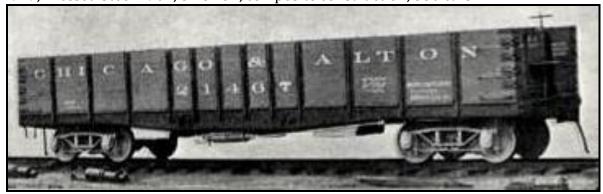


The Alton was an early adopter of the all-steel car type, especially for gondolas and hoppers. Their earliest steel cars didn't seem to live long lives, and by 1927 the 300 cars of this series was down to just eight cars.



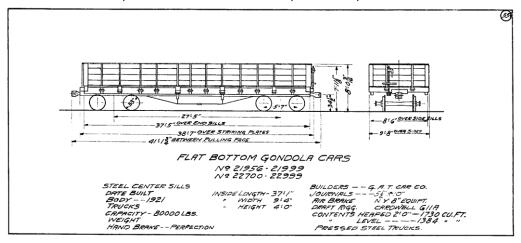
More early all-steel, drop bottom gondolas, there was only one of these cars left in 1927. AC&F builder's photo, Al Westerfield collection.

21500-21949, Pressed Steel 1901, 37'5" OL, composite construction, 350 cars.



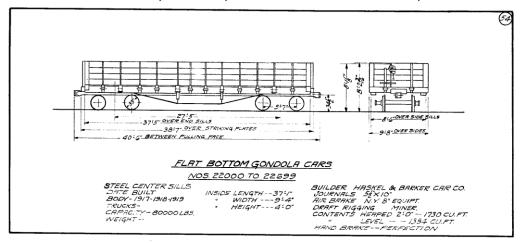
The Alton's early composite gondolas with Pressed Steel underframes fared far better than their all-steel cars did, and 350 of 450 cars were still rolling 25 years after they were built. These gondolas had two pairs of drop doors to make unloading a bit easier. Scientific American Magazine.

21956-21999 and 22700-22999, General American 1921, 37'5" OL, wood with steel center sills, 344 cars.



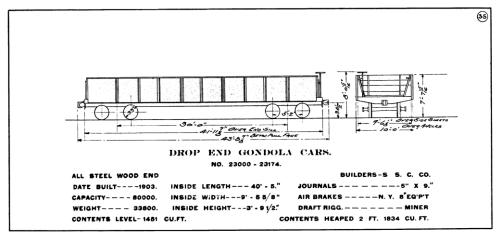
These two groups of short, wood-bodied gondolas were built after WWI to cover a small surge in coal shipments, and were constructed as cheaply as possible (the construction of brand new, all-wood gondolas were almost unheard of for new car construction in the 1920s). The cars were very similar to the 11000- and 12500-series cars, and scrapped in the early 1930s.

22000-22699, Haskell & Barker 1917, 37'5" OL, wood with steel center sills, 690 cars.



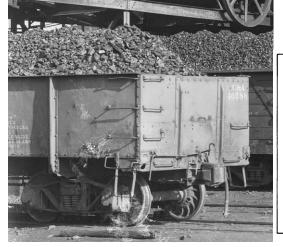
More wood-bodied gondolas, the 22000-series cars were built to cover booming coal traffic in the years just before America's involvement in WWI. The cars would all be retired and scrapped before WWII.

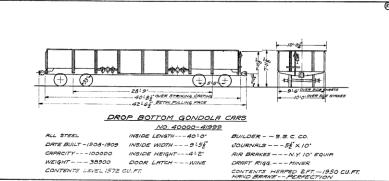
23000-23174, Standard Steel 1904, 42'0" OL, all steel, 4 cars.

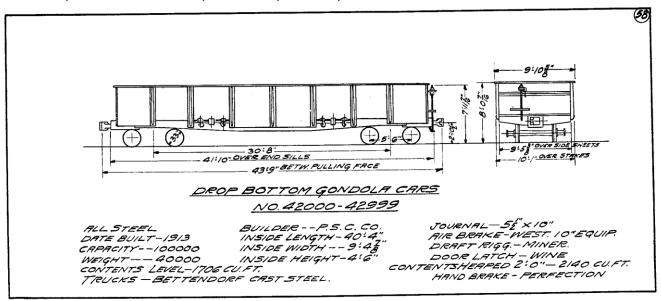


More early all-steel gondolas, these cars were equipped with drop ends for the mill trade. As with most of their other early steel cars, these didn't survive very long.

40000-41999, Standard Steel 1908, 40'8" OL, all-steel, 1,902 cars.

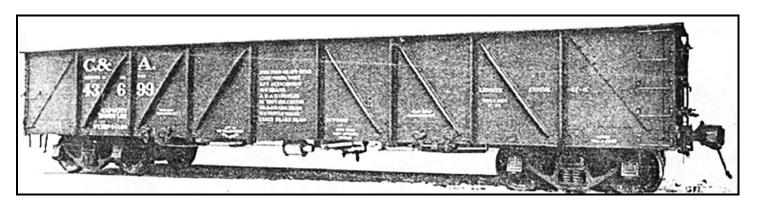






The 3,000 cars of the 40000- and 42000-series formed the backbone of the Alton's coal hauling car fleet. Oddly enough little is known about these cars, and few photos have surfaced. Typical early GS-type gondolas, they survived into the 1930s relatively intact as a group, but were all scrapped before WWII.

43000-43499, Standard Steel 1919, 42'1 OL, composite, 499 cars. 43500-43749, Pullman 1924, 42'1" OL, composite, 250 cars. 44000-44499, Pullman 1924, 42'1" OL, composite, 500 cars. SOCX 501-1000, Pullman 1924, 42'1" OL, composite, 354 cars.



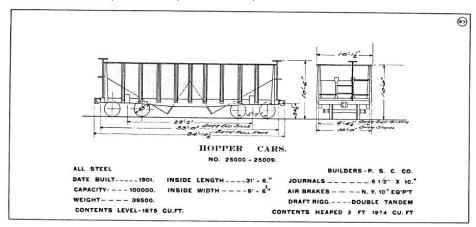
The second largest group of gondolas on the Alton, the 1,750 cars of the 43000-44499 series were made up of 500 USRA-assigned cars and 1,250 near-identical clones. The copies were all built in 1924 by Pullman, and included 500 cars built for Standard Oil but operated and maintained by the Alton, to protect that company's construction of three huge mines around Carlinville, IL, with a daily output of 4,000 tons. These cars were the only gondolas to stay on the Alton's roster from the mid-1930s to the GM&O takeover.

NEB&W collection.

HOPPERS

Hoppers were never as important to the Alton as gondolas, so the road never owned many. In fact, except for three types of semi-experimental cars built between 1901 and 1905, the Alton didn't buy any hoppers until a group of war emergency cars were purchased in 1944.

25000-25009, Pressed Steel 1901, 33'0" OL, 1675 cu ft, 10 cars.

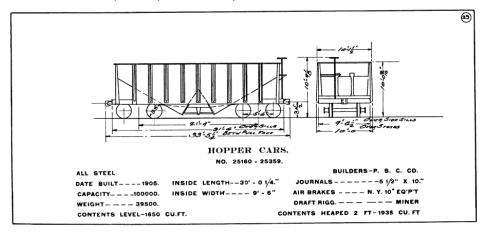


25010-25159, Pressed Steel 1901, 31'6" OL, 1650 cu ft, 147 cars.



Library of Congress collection.

25160-25359, Pressed Steel 1905, 31'6", 1650 cu ft, 198 cars.



STOCK CARS

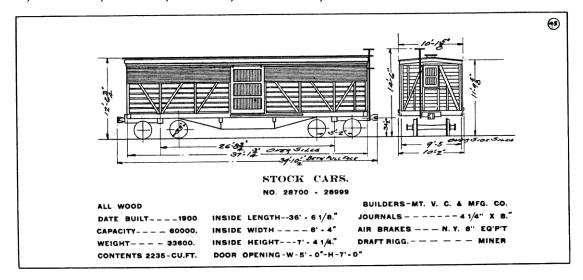
With direct connections to the large stock yards in Chicago, Peoria, East St. Louis, Springfield, and Kansas City, stock movement was more important to the Alton than on many other railroads. At Chicago the Alton handled about 3% of all shipments in and out of the Yards, which amounted to 11,092 car movements in 1921. Traditionally, the Alton leased some of their stock cars from Mather on long term contracts, but those were all terminated during the road's 1922 bankruptcy proceedings (the railroad would start leasing Mather cars again after the B&O took control in 1931).

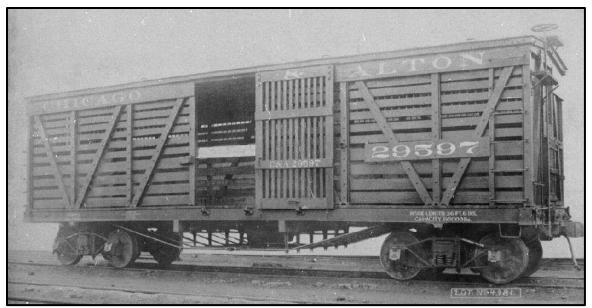
28000-28499, ACF 1914, 40'1" OL, single deck, 500 cars.



The newest stock cars of the Alton's fleet, these 500 cars were similar in construction to IC cars built at the same time, and may have actually been a "tack on" order, with the Alton just copying the IC cars to save time and money. The only Alton stock cars to survive the Depression, these cars would be scrapped by new owner GM&O by 1951, in favor of leasing 300 Mather cars.

28700-28999, Mt. Vernon Car Co. 1900, 37'1" OL, all wood, single deck, 198 cars. 29300-29599, ACF 1906, 37'1" OL, all wood, single deck, 134 cars. 29850-29999, ACF 1906, 37'1" OL, all wood, double deck, 133 cars.

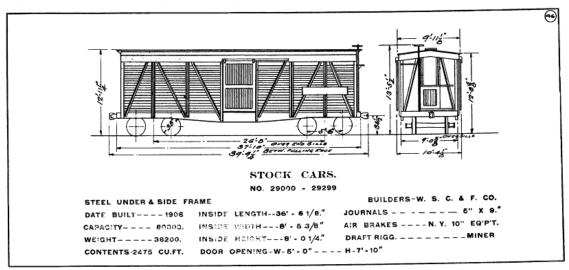




All built to the same general design over a span of five years, the 750 cars of the 28700-29999 series were traditional all-wood cars that were virtual clones to Mather cars built at the same time. By 1927 this group of cars was down to 465 cars, which would all be scrapped by 1930.

AC&F builder's photo, Al Westerfield collection.

29000-29299, Western Steel 1906, 37'10" OL, 297 cars.



These 300 cars were Harriman S-40-1 designs, built during the beginning of the Harriman era of the Alton. Stronger than the 28700-series cars, they would survive to the early years of WWII.

FLAT CARS

Nearly 4% of the Alton's freight cars were flat cars, making them a fairly important part of their overall roster. Usually used for hauling trucks and buses from Chicago and heavy machinery to online mines or from Caterpillar in Peoria, the cars were sometimes pressed into pulpwood service on the west end of the railroad.

24000-24074, Standard Steel 1902, 42'0" OL, all steel, 75 cars.



These all-steel cars were built based on the over-engineered Pressed Steel underframe design, and so were virtually indestructible. Outliving most other flat cars on the Alton's roster they were finally retired from revenue service by 1940, but many continued to be used in MOW service into the 1970s.

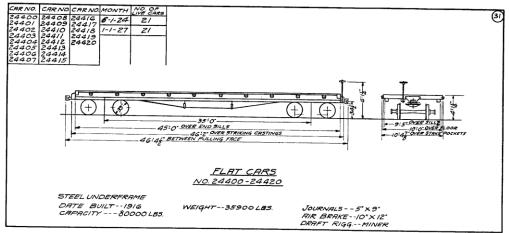
At least two are preserved in museums today.

24100-24399, ACF 1906, 41'10", all wood, 229 cars.



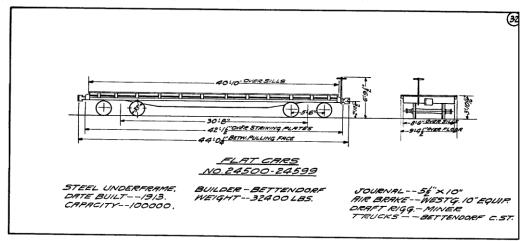
Ever frugal Alton returned to an all-wood flat car design in 1906. These 300 cars would work until 1930, when the survivors would be burned for scrap. AC&F builder's photo, Al Westerfield collection.

24400-24420, C&A Shops 1916, 46'2" OL, steel underframe, 21 cars.



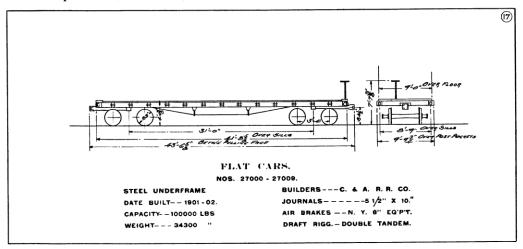
The Alton built a lot of flat cars in their Bloomington car shops, and these 21 cars were the longest, used to handle two Liberty trucks at a time to Eastern ports for export overseas during WWI. The cars would be scrapped during the early years of the Depression.

24500-24599, Bettendorf Car Co. 1913, 42'1" OL, steel underframe, 99 cars.

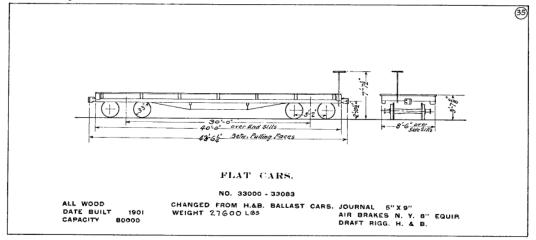


Some of the last Harriman-Standard cars to be ordered by the Alton, these F-50-5 type flat cars were also the last ones on the roster, finally being scrapped by the GM&O by 1950.

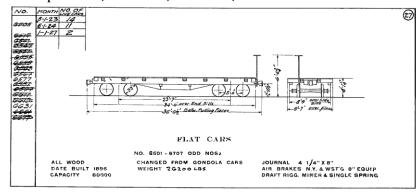
27000-27009, C&A Shops 1901, 41'8" OL, 9 cars.



33000-33083, C&A Shops 1901, 40'0" OL, all wood, 55 cars.



6501-6906 (odds), C&A Shops 1896, 34'0" OL, all wood, 2 cars.

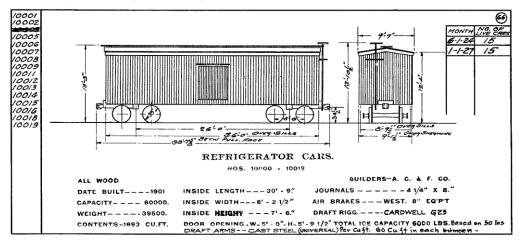


These three groups of old, all-wood flat cars were all home brews from the Bloomington Shops, mostly as rebuilds from older gondolas. All were to be scrapped and burned by 1930.

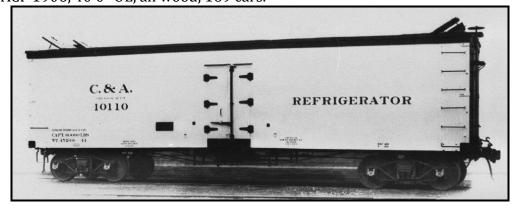
REEFERS

Perishable freight traffic was important to the Alton, mostly as Western through freight between Kansas City and "points east". Traditionally building their own reefers, the Alton turned to ACF for modern cars in 1900 and 1906. The Alton tried to maintain a roster of around 200 cars to handle general online ladings, but by the Depression decided to scrap their remaining cars and turn to short term leases from various leasing companies.

10000-10019, ACF 1900, 36'0" OL, all wood, 15 cars.



10100-10399, ACF 1906, 40'0" OL, all wood, 169 cars.

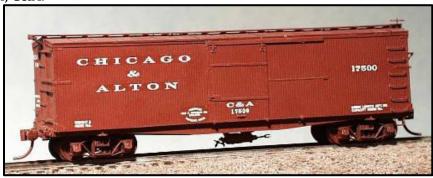


MODELING THE ALTON'S FREIGHT CAR FLEET IN HO SCALE

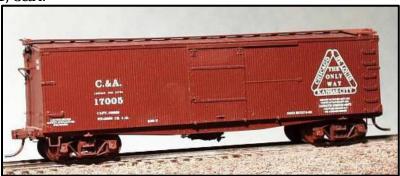
Adding Chicago & Alton freight cars to your roster isn't actually all that hard, once you know what their cars looked like. The really antique cars like their boxcars and flats may be a bit of a challenge, but most of their core cars are available in either plastic or resin.

Westerfield should be your first stop, since they have the most "Alton appropriate" cars. Their 1700 and 7300 series kits will cover both groups of Harriman-type boxcars (both as-built and modernized), the 10600 series wood gondolas will cover several groups of Alton cars, and the 12550 series kits will cover 300 of their stock cars. Westerfield is also your best bet when it comes to finding C&A decals.

1708: B-50-2 original, C&A.



1718: B-50-4, post 1911, C&A.



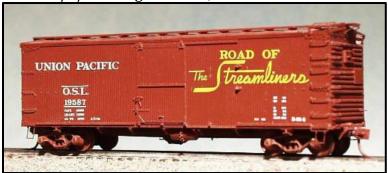
1754: B-50-4, modernized with steel ends, UP (use for modernized Alton cars with steel ends).



7312: B-50-9, as built, C&A.



7355: B-50-6, modernized with 5/5/5 corrugated ends, UP.



Note that this is actually a stand-in for the Alton's modernized cars, since they used unique 8/7 corrugated ends. Nobody makes those ends, so work with what you can find.

10600: 36-foot wood gondola, undecorated.



12552: S-40-1 stock car, OSL.



Westerfield sells three decal sets, all from their C&A cars. These will come in handy for anyone modeling an Alton car roster, since there aren't any others available (Champ used to have a couple of sets, but they're long OOP). The Alton seems to have dropped their triangular herald in the mid-1920s, but some cars survived through WWII with it intact.

D1708, C&A early lettering D1718, C&A post-1911 lettering D7312, C&A WWI era lettering

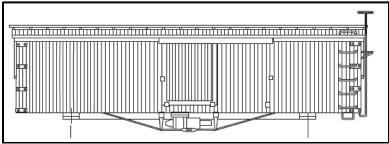
Owl Mountain Models makes a very nice SP flat car kit that's also appropriate to use for the Alton's 24500-series cars.

#2002: F-50-5 flat car with T-section trucks



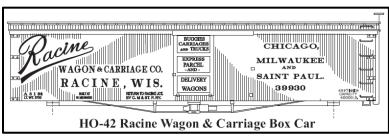
If you want to model a few of the Alton's really old cars, LaBelle kits are your best bet. They're wood kits, but do build up into very nice models. I've suggested three kits that should be appropriate for use as C&A cars.

HO-40-1: 36-foot boxcar



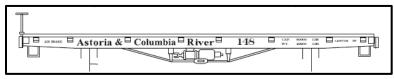
Use this kit for the 15000-series Alton boxcars.

HO-42: 50-foot boxcar



Use this kit for the Alton's 27700-series furniture boxcars.

HO-50: 36-foot flat cars



Use this kit for the Alton's 6501-series flat cars.

And finally, look to Intermountain or Walthers Proto for your USRA composite gondola needs. At one time Intermountain produced the cars in C&A lettering, but you may need to fall back on undecorated kits and home brew lettering.

46618: USRA composite gondola, C&A



Walthers 920-37050: USRA composite gondola, undecorated.



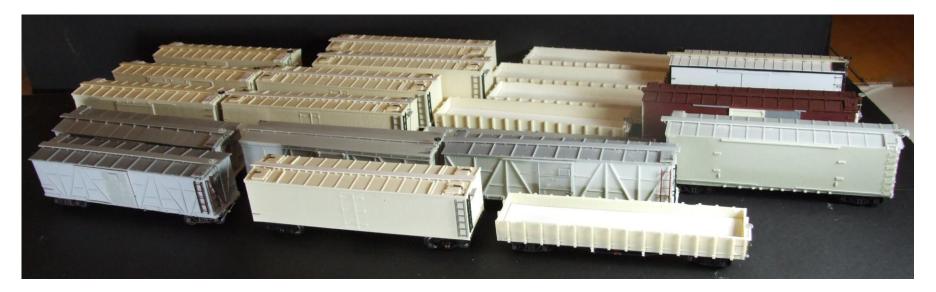
While now discontinued, this model is still out there, either under the "Walthers Proto" brand or its original "Life-Like Proto 1000" brand.

EARLY AUTO BOXCARS A NEEDED ADDITION TO ANY PRE-1930 CAR FLEET



By RAY BREYER September, 2022

We need to build a lot of model freight cars in order to create a realistic 1900-1930 freight car roster. Between RTR, kits, and resin we should have a multitude of choices, and you'd think that "most" of the important cars would have been produced by a variety of manufacturers. But are they?



Since XM-type plain boxcars have been partially covered by plastic manufacturers, resin companies tend to focus on "obscure" and possibly even "cute" cars. Resin manufacturers generally claim to cater to modelers who prefer earlier years, but is what they're producing truly useful for a pre-Depression era layout?

If you lean on what models are offered in resin catalogs, will you wind up with an accurate pre-1930 car fleet, or will it become skewed towards a wrong interpretation of the national fleet based on what older modelers were viewing in the 1960s and 1970s, or on what few car plans they were able to find in a few random Car Builders' Dictionaries?



Do we really need a bunch of USRA cars and their lookalikes, or should we be focusing on other things?

AUTOMOBILE BOXCARS

Looking at one specific car type as an example of the above dilemma, automobile boxcars were an important part of the early car fleet but are generally overlooked by most modelers, mostly because so few good kits are available.



Double and single sheathed auto boxcars dominated the car type well into the 1940s, but few modelers actually run any.

Since automobiles were a priority, high-tariff freight type, shouldn't most modelers have a few XAs?

What models are offered? What models do we actually need for a pre-1930 themed layout?





Is there anything at all RTR, or will everything have to be resin, kitbashed, or scratch built? (and is THIS the real reason why most early rail modelers don't have auto boxcars in their fleets?)

AN INSANELY SHORT HISTORY OF THE EARLY AUTOMOBILE

- 1886: The automobile is invented by Benz.
- 1893: Dureya becomes the first large American auto maker.
- 1901: The "modern" automobile is invented by Mercedes.
- 1901: Oldsmobile becomes the first mass-production auto maker in the USA.
- 1902: Studebaker begins producing automobiles (electric; gas comes in 1904).
- 1903: Ford Motor Company is founded.



Original cars were expensive, unreliable, hand-made luxury items for the rich and wanna-be rich.

- 1904: Oldsmobile produces the first "middle class automobile".
- 1907: The Ford Model R is the company's best seller, with 7,500 units sold.
- 1908: Ford releases the first Model T. 15,000 are ordered that year. The auto industry changes forever.







1904 Olds, 1907 International light truck, 1909 Ford Model T. These sorts of cars introduced the middle class, the farmers, and eventually the working class to the joys and freedom of personal transportation.

In only ten years, the automobile changed the roads of America forever.



New York City 1909 (LoC)



Pittsburgh PA, 1928 (Historic Pittsburgh collection)

PRODUCTION & REGISTERED VEHICLES IN THE USA, 1899-1907

<u>1899-1900</u>	QTY	<u>1901</u>	QTY	<u>1902</u>	QTY	<u>1903</u>	QTY	<u>1904</u>	QTY	<u>1905</u>	<u>QTY</u>	<u>1906</u>	QTY	<u>1907</u>	<u>QTY</u>
Columbia	1,500	LOCO	1,500	LOCO	2,750	OLDS	4,000	OLDS	5,508	OLDS	6,500	Ford	8,729	Ford	14,887
Locomobile	750	Winton	700	OLDS	2,500	Cadillac	2,497	Cadillac	2,457	Cadillac	3,942	Cadillac	3,559	Buick	4,641
Winton	100	OLDS	425	Rambler	1,500	Ford	1,708	Rambler	2,342	Rambler	3,807	Rambler	2,765	REO	3,967
Packard	49	White	193	White	385	Pope	1,500	Ford	1,685	Ford	1,599	REO	2,458	Maxw ell	3,785
Stanley	30	Autocar	140	Knox	250	Rambler	1,350	White	710	Franklin	1,098	Maxwell	2,161	Ramb ler	3,201
Stearns	20	Knox	100	Packard	179	Winton	850	Stanley	550	White	1,015	OLDS	1,600	Cadill ac	2,884
Knox	15	Packard	81	Stanley	170	White	502	Franklin	400	REO	864	White	1,534	Frank lin	1,509
Oldsmobile	11	Stanley	80	Union	60	Knox	500	Packard	250	Maxwell	823	Buick	1,400	Pack ard	1,403
TOTAL	2,475		3,219		7,794		12,907		13,902		19,648		24,206		36,277
		•	•		•	•	•			•	•	•	•	•	
REGISTERED	8,000		14,800		23,000		32,920		55,290		78,800		108,100		143,200



Washington DC, 1920 (LoC)

THE FIRST AUTOMOBLIE CARS

In January 1905, there are ZERO automobile boxcars. As a rare luxury item, cars and trucks shipped from factories are carried in the few available furniture boxcars, which can easily handle a couple of light automobiles, and which were generally the only boxcars in operation with doors over six feet wide.



TH&L 5116 was one of 20 cars built by ACF's Terre Haute IN plant in December 1899. Only 5,500 boxcars over 45 feet long were in service by 1900. (ACF builder's photo, Al Westerfield collection)

Since automobiles were the property of the upper middle class and the rich, they were often taken along on extended trips or vacations (they'd never survive a cross-country road trip). Railroad baggage cars begin being built with wider side doors to accommodate this sort of specialty freight, becoming some of the first "car carriers" on the rails.



Traditionally, baggage cars were built with four or five foot wide side doors, as seen here on this 1890-built Reading car.

By 1901 you begin seeing baggage cars built with six, seven, and eight foot wide doors. Mail sacks and steamer trunks weren't getting larger; the type of "baggage on wheels" the rich were traveling with were. For example, NYC&HR 2907 was built with 7' 6" doors in 1902.

(both photos, Jackson & Sharp collection, Delaware Public Archives)

It's a toss-up as to who had the first auto boxcars. Since 1906 ORERs aren't available online precision isn't currently possible, but I've narrowed the list to two groups of cars: Pere Marquette 52500-52999, and New Haven 63800-63899. Both appear as the ONLY auto boxcars in the March 1907 ORER.





(no photos of the NH 63800-series have popped up, but they probably looked like these 1906-built PSCC cars) (PM 52815, Pullman photo, IL Digital Archive collection. NH 72301 Standard Steel photo, author's collection)

By December 1907, these pioneer cars were joined by others, with the national fleet growing to 2,464 cars.

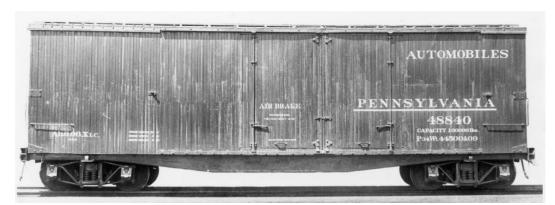
ROAD	<u>NUMBERS</u>	<u>QTY</u>	<u>NOTES</u>
PRR	10901-11000	100	XLC
PRR	11001-11010	10	XL
	559943-		
PRR	559964	20	XLC, UNION LINE
MC	95500-95999	112	Pullman 1907
LS&MS	59500-59999	500	Pullman 1907
LS&MS	60000-60499	490	H&B 1906
LS&MS	62500-62999	495	H&B 1906
LV	2501-2525	25	SSCC 1907
NH	63800-63899	100	1906
D&H	20900-20999	100	ACF 1907. Lot 4598, first XA built by ACF.
PM	52500-52999	499	Pullman 1906
MATHER			
(leased to			
C&EI)	unknown	13	H&B 1907

TOTAL XA: | 2,464

It's a mystery as to why 1907 is the tipping point year for auto boxcars. Automobile production had been rising at a steady 25%-50% every year since 1900, but was still only at 36,000 new units built in 1907. It would take until 1913 before the Model T would really make a difference in shipping needs (Model Ts built in 1911: 32,053. Model Ts built in 1913: 168,200).

There's no real mention of automobile traffic in pre-1920 railroad trade journals, and the first auto boxcars don't appear in the Car Builders' Dictionary until 1913. From 1903 to 1909, "auto cars" are defined as baggage cars for passenger train service.

Regardless, 1907 should be considered as the first year auto boxcars are a regular sight on American railroads, at least in the northeastern quarter of the country where most of the population, and where most of the auto owners, were.



First PRR XA (class XLc) built 1907.



First NYC Lines XA built 1906.



First D&H XA built in 1906.



First Mather XA built in 1907.

The first 15 years of auto boxcar production was dominated by the double sheathed car type.









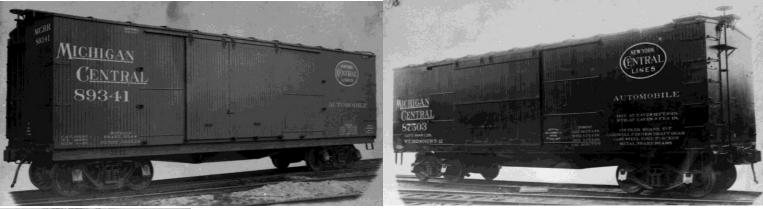


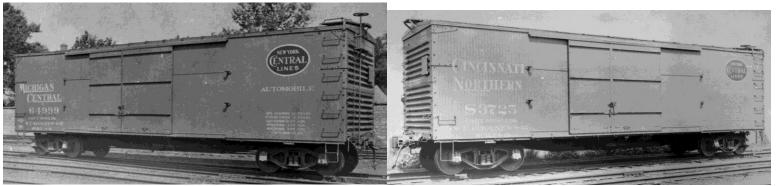


The New York Central Lines family of railroads was by far the largest user of the car type, eventually building 24,000 double sheathed auto boxcars through the end of 1928 (in addition to 17,000 all-steel auto boxcars, beginning in 1916).



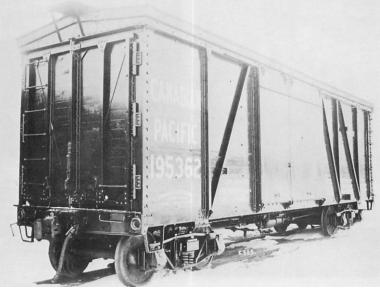






Originally, single sheathed auto boxcars were a rarity. The first built were Mather all-wood cars built in 1907, followed by a few hundred "machinery car" Dominion-type boxcars built for the CN and CP, along with 40 and 50-foot long Erie "Fowler clones" built just before WWI.



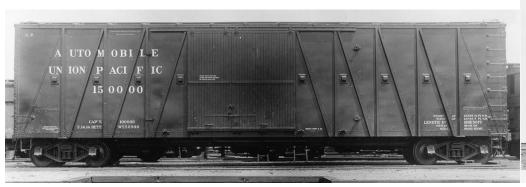




The single sheathed boxcar design generally gained acceptance in the USA by 1916, and by 1925 almost all auto boxcars being built were single sheathed cars.









Railroads began building all-steel auto boxcars in 1916, but besides a few thousand built for the NYC and PRR, steel XAs remained a rarity well into the late 1930s.









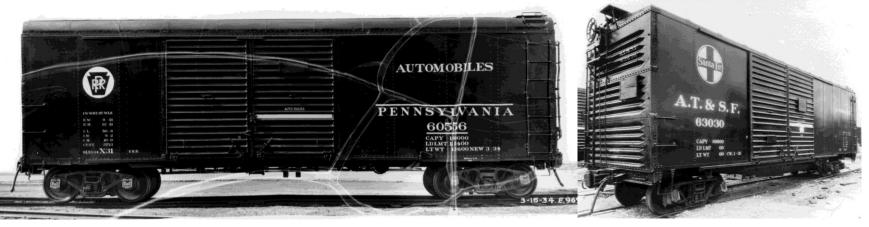




The Great Depression essentially killed off freight car construction through 1936. The few that were built were all-steel, bringing an end to wood-sided auto boxcar construction.







THE NATIONAL AUTO BOXCAR FLEET OF 1926



Crates of auto parts are unloaded from a Wabash XA in Hoboken NJ, 9/15/1926. (DL&W company photo, Steamtown NPS)

1926 is an excellent year to examine the pre-1930 auto boxcar fleet in its prime. With 160,121 cars it's near its largest size, and the fleet has the widest variety of cars it'll ever have.

TOP 10 FLEETS:	NYC FAMILY	38,026	23.7%	SHORT DS	LONG DS	<u>ss</u>	STEEL
	PRR	9,379	5.9%	NYC - 5348	NYC - 6667	WAB - 7008	MC - 11609
	CM&StP	8,974	5.6%	MC - 4236	ATSF - 5501	MILW - 6757	PRR - 5747
	Wabash	7,966	5.0%	PRR - 1654	B&O - 5307	IC - 5395	NYC - 3983
	B&O	7,376	4.6%	SOU - 1072	MC - 4147	CN - 4981	B&O - 1173
	IC	6,657	4.2%	B&O - 896	PM - 3477	SLSF - 3500	NOR - 749
	UP FAMILY	5,855	3.7%				
	SP FAMILY	5,511	3.4%	16,098 total (10%)	59,847 total (37.4%)	59,531 total (37.2%)	24,645 total (15.4%)
	ATSF	5,501	3.4%				
	C&NW & CMO	5,479	3.4%				

62.9% of all XA

Auto boxcars make up 13% of the national boxcar fleet, and definitely do more than haul Plymouths around; they can be considered a part of the general national car pool. Additionally, auto boxcars do actually carry automobiles, and on some routes may be grossly over-represented due to specific traffic patterns. Most modelers need one or two, even if they don't think they do.

Notice that a quarter of all auto boxcars are owned by one of the New York Central family of railroads. If you plan on adding one or two XAs to your fleet, look at adding one of their cars first. Similarly, if you want one single sheathed auto boxcar, it may need to be a Wabash car.



ADDING AN AUTO BOXCAR MODEL TO A 1907-1930 ROSTER: THE OPTIONS

Are manufacturers our friends?



The AHM 40-foot double sheathed XA and Roundhouse 50-foot single sheathed XA are the only two mass-produced "early" auto boxcars in HO scale. The AHM cars is complete fantasy, while the Roundhouse model represents a very small niche car. Things are no better in N scale, with one 40-foot double sheathed car from Micro-Trains and one 50-foot single sheathed car from Walthers.

With exactly none of the most common types of auto boxcars made as mass-produced, easily obtained models, it's apparent that plastic model manufacturers don't care about 160,000 cars that need to be to be on your layout.

1910-1930 acceptable auto boxcars are somewhat better represented by resin manufacturers. As always, Westerfield is our friend, and everyone else needs to be viewed with caution, in case the model is really post-Depression era.

Westerfield	B&O M-13B 38-FT DS	F&C	CV 40-FT SS
Westerfield	B&O M-15 40-FT DS	F&C	GTW 40-FT SS
Westerfield	CCC&StL 40-FT DS	F&C	IC 40-FT SS ***
Westerfield	DSS&A 40-FT DS	F&C	KCS 40-FT SS
Westerfield	GN 50-FT SS	F&C	RDG 40-FT STEEL
Westerfield	LE&W 40-FT DS	F&C	WAB 40-FT SS
Westerfield	LV 40-FT DS	Rocket Express	RI 40-FT SS
Westerfield	MC 40-FT 1916 STEEL	Rocket Express	RI 50-FT SS
Westerfield	MC 40-FT 1922 STEEL	Speedwich	AA 40-FT SS
Westerfield	MC 40-FT DS	Speedwich	CB&Q 40-FT SS
Westerfield	MP 40-FT SS	Speedwich	NP 50-FT SS
Westerfield	NKP 40-FT DS	Speedwich	PM 40-FT SS
Westerfield	NOR 40-FT DS	Speedwich	SP A-50-4 40-FT SS
Westerfield	NYC 40-FT 1916 STEEL	Sunshine	ATSF FE-L 40-FT DS
Westerfield	NYC 40-FT 1922 STEEL	Sunshine	ATSF FE-P 40-FT DS
Westerfield	NYC 40-FT DS	Sunshine	MKT 40-FT SS
Westerfield	PRR X25A 40-FT STEEL	Sunshine	NJI&I 40-FT SS
Westerfield	PRR XLC 36-FT DS	Sunshine	PM 40-FT DS
Westerfield	RI 50-FT SS	Sunshine	PM 40-FT SS
Westerfield	Rutland 40-FT DS	Sunshine	SLSF 40-FT SS
Westerfield	T&P 40-FT DS	Sunshine	Southern 40-FT DS
Westerfield	UP A-50-4 50-FT SS	Sunshine	WAB 40-FT SS
Westerfield	UP A-50-6 50-FT SS		

***The F&C IC auto box needs to have a second door added before it can be used.

16 DS (really, 8)	
23 SS	
6 STEEL	

Except for Westerfield, NONE of these cars come with pre-Depression era decals, although all were built before 1928.

The list above is skewed VERY heavily in favor of cars that were built in the very late 1920s and which ran into the 1960s, including most of the cars offered by Westerfield. There are also some huge omissions (short NYC cars and Pennsy X24s, especially). If you model before 1912 you have ONE kit you can buy (XLc); if you model before 1922 that number jumps to four.

GETTING MORE VARIETY: KITBASHING IS YOUR FRIEND

To add "sincere" pre-Depression auto boxcar models to your fleet besides what's available in resin, you'll have to do some old-fashioned modeling. Here are a few ideas:

#1, CRAZY SIMPLE: New England Rail Supply half doors.







Designed to be drop-on parts for the Accurail eight panel single sheathed boxcars, these parts can also be used to create double sheathed auto cars. To the left is a MC car built out of a Roundhouse 36-foot reefer, and to the right is an Ertl USRA boxcar, used as a stand-in for a Wabash car.

#2, NOT SO SIMPLE: involved kitbashes.





Kitbashing is your friend, and is something we all need to do if modeling the early 1920s. Short auto boxcar models are basically unavailable, so you have to make due on your own. This kitbash of a NKP (NYC designed) car involves a Roundhouse reefer, with scratch built roof, doors, and underframe.



The Accurail short double sheathed boxcar can also be converted to a NYC or MC auto boxcar, with a scratchbuilt door. Either wood or corrugated steel ends are appropriate, for various versions of these prototypes.



If you want a 40-foot Wabash, MKT, or SP single sheathed auto boxcar, you may need to drag out your Xona saw and chop up a 50-foot Roundhouse car.

#3, REALLY HARD: roll your own "kits".







All three of these models represent the state of the art in "scratchbuilding". All three are custom resin kits which started out as 3D CAD renderings. One master was then printed, and multiples reproduced as resin kits. While not simple by any means, these cars do show how a resourceful modeler can add accurate cars to their fleet.



THE END