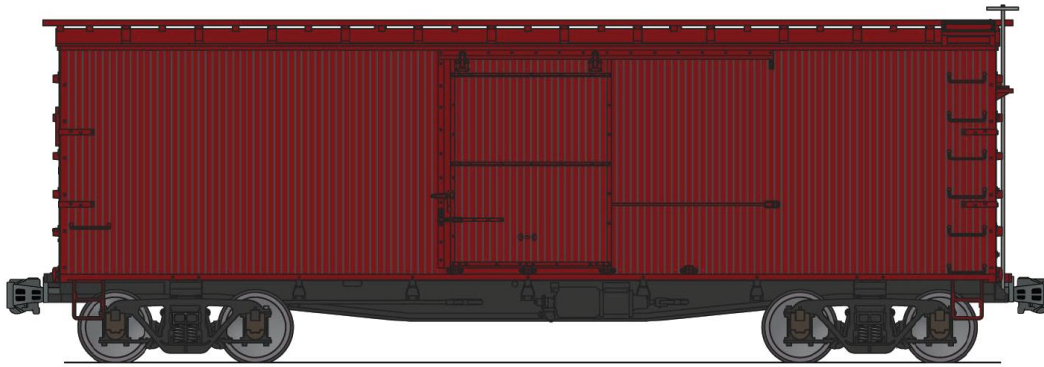


# ACCURAIL'S NEW SHORT BOXCAR MODEL AND ITS MATCHES

## **PART TWO: THE 1400-SERIES KITS**

By Ray Breyer

*(all photos from the author's collection, unless noted)*



*CAD art of the new model, courtesy of Accurail*

In the [first part](#) of this series I surveyed Accurail's upcoming [1300-series](#) kits for a New York Central designed short boxcar. This installment deals with the [1400-series](#) kits, which share the same body as the 1300-series but feature a different underframe. Instead of large fishbelly steel center sills, the 1400s will come with 15" C-channel, straight steel center sills. The base model represents a generally newer car than the 1910-designed NYC boxcar. As such it was introduced just before the railroad industry fully embraced larger 40-foot long boxcars, so this short car type was built in smaller numbers than other cars of this kit series. But the basic model is also more useful for a large number of road names, since many railroads were buying modern-technology short boxcars in the half-decade leading up to World War I. The model will also be useful to represent all-wood boxcars rebuilt in the mid-1920s with steel ends and roofs, as well as older cars rebuilt with new steel underframes and trussrods, a common modification for that period that's almost always overlooked by modelers.

### **THE 1400-SERIES KITS:**



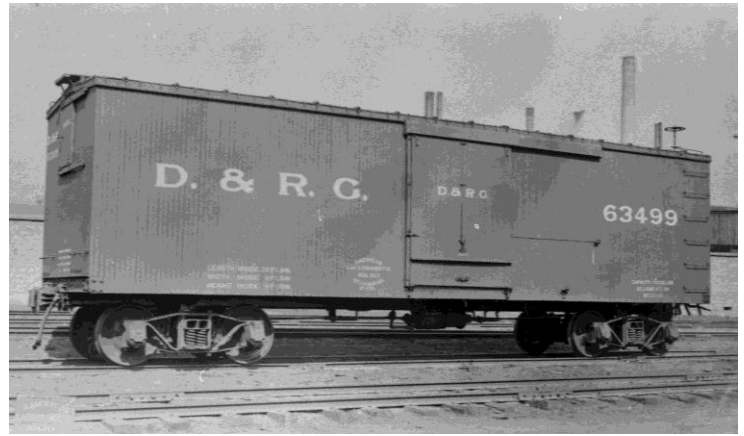
*AC&F Photo, Al Westerfield collection*

Accurail has announced eleven models in the initial release of the 1400-series kits. As with all of their other car offerings, the releases include undecorated (#1400), and two cars painted with dimensional data only (#1498, mineral red, and #1499, oxide red). The 1400 series also includes nine different road names. Most of these announced kits do represent actual prototypes, so the kits should be acceptable out of the box, so long as you pay attention to what era the paint schemes represent!

## 1401: DENVER & RIO GRANDE WESTERN



*Western Railway Museum photo*

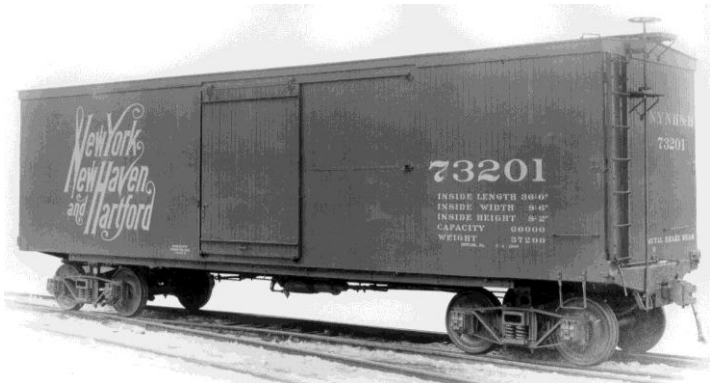


*AC&F Photo, Al Westerfield collection*

Starting with these Rio Grande cars is a good example of how the models accurately represent the prototype, in a certain context. The models best represent D&RGW 62000-63499, which were built by ACF in 1909 with all-wood bodies, early Hutchins steel roofs and a steel underframe. In 1926 the D&RGW rebuilt the cars with new doors, new roofs, and 7/7 inward rib steel ends (the cars also had their archbar trucks replaced with cast steel ones, most likely at the time of rebuilding). So while these cars were built well before World War I, this specific Accurail offering is best for modelers of the post-1925 period. The cars themselves lasted a long time: there were still 1,433 in 1930, and 1,000 at the beginning of WWII. Their numbers drop dramatically during the war, until there were only 225 left in 1945. Some cars were sold to the U.S. Army, and other were assigned to subsidiary D&SL, so they weren't all scrapped. By 1950 the group was down to 15 cars, which somehow survived the K-brake ban but were all retired by the end of 1958. Several dozen cars survived in the Rio Grande's MOW fleet, and at least five cars are preserved in museums around the West.

(One note: it's doubtful, but not impossible, that any of these cars got the Rio Grande's "speed lettering" road name)

## 1402: NEW HAVEN

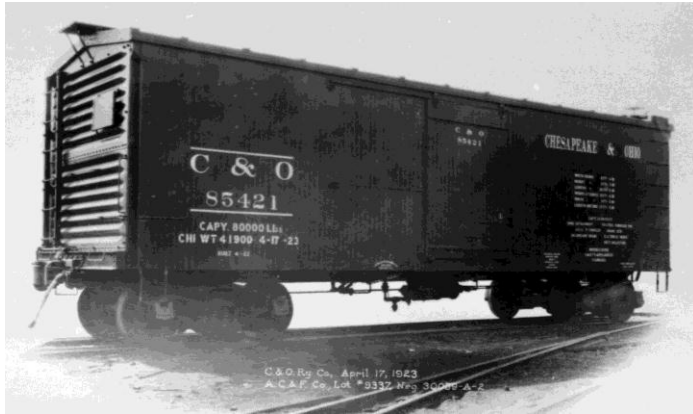


*Both photos Ted Culotta collection*

The New Haven boxcar roster from the 1915-1945 period is a jumbled mess of several car groups and renumberings, but one thing is readily apparent: this Accurail model is a placeholder stand-in at best, and realistically isn't well suited for a New Haven model. The NH began building 37-foot long (outside) boxcars in 1903, and built about 20,000 generally similar cars through 1912. Besides a couple of thousand cars with fishbelly side sills, most were all-wood bodied with straight steel sill underframes. The NH began rebuilding these cars in the mid-1920s with steel roofs and composite ends, and in the late 1920s with Dreadnaught ends and Youngstown steel doors. The last 35 of these cars dropped off the NH revenue roster around 1953-1954, with some cars surviving in the MOW fleet into the 1980s.

In general, the as-built cars can be represented by Accurail's upcoming 1800-series kits, but transforming a 1400-series kit into an accurate Depression-era NH boxcar probably isn't worth the effort since resin kits are available.

## 1403: CHESAPEAKE & OHIO



AC&F Photo, Al Westerfield collection



C&OHS Collection

Before WWI, the Chesapeake & Ohio's boxcar fleet was made up of an assortment of standardized, 38-foot long, all-wood boxcars. During the war the USRA allocated 1,000 40-foot single sheathed boxcars to the railroad. The C&O must not have liked these (at the time) large, progressively-built boxcars, and in 1923 took a step backwards in boxcar development, ordering 2,370 37-foot long, double sheathed cars from AC&F. The order was broken up into three types of cars: plain boxcars, auto carriers, and ventilated boxcars. All of the cars shared the same general underframe and body design features, giving them a family look. By 1925 the C&O was building 40-foot cars, and by 1930 all-steel boxcars, so this 36-foot car design never went any further than these 2,300 cars. The C&O thought enough of the design that they rebuilt them in the mid-1930s, with most of the ventilated cars downgraded to plain boxcars, and most of the group receiving radial roofs and Youngstown doors.

The group stayed relatively intact through WWII, with 1,850 cars in 1945. With the absorption of the Pere Marquette and their large boxcar fleet in 1947 these short boxcars were no longer needed, and they were retired quickly. By 1951 the group was down to 275 cars, mainly ventilated boxcars, and they were gone by 1955. The C&O did keep a large number of them around in MOW service, however, and the last cars weren't finally retired until the early 1980s.

The Accurail model best represents the as-built 84730-86499 series XMs, before the bulk of them were rebuilt in the 1930s. A few stragglers did make it through WWII without Youngstown doors, and many of the rebuilds survived without the radial roofs. As these specific cars may well never be made in model form it should be possible to mimic the rebuilds by sanding the cast-on wood door down and overlaying a Youngstown door.

## 1404: DELAWARE, LACKAWANNA & WESTERN



AC&F Photo, Al Westerfield collection

The DL&W owned a large roster of double-sheathed boxcars, and went through a logical progression of updating their same general style of car for several decades. By 1900 they had standardized on a single "box" dimension for their XM fleet and stuck with it for over 20 years. Although they began buying 40-foot long automobile cars around 1910, the road's traffic dictated staying with shorter general-use cars (their average boxcar tonnage was only 12 tons, so they



didn't need larger boxcars). The road transitioned to straight steel underframes around 1908, and in 1910 began building cars with steel roofs and 7/7 inward rib steel ends. By early 1922 and their final order for short boxcars the road had built 3,800 of them. The DL&W never rebuilt these cars in any significant way, but they did stay on the roster for a long time. By 1945 the fleet was down to 1,440 cars, and by 1950 to 500. But by the time of the Erie-Lackawanna merger in 1960 there were still 14 of them on the revenue roster, all 43500-43999 series cars, most wearing "Phoebe Snow" lettering.

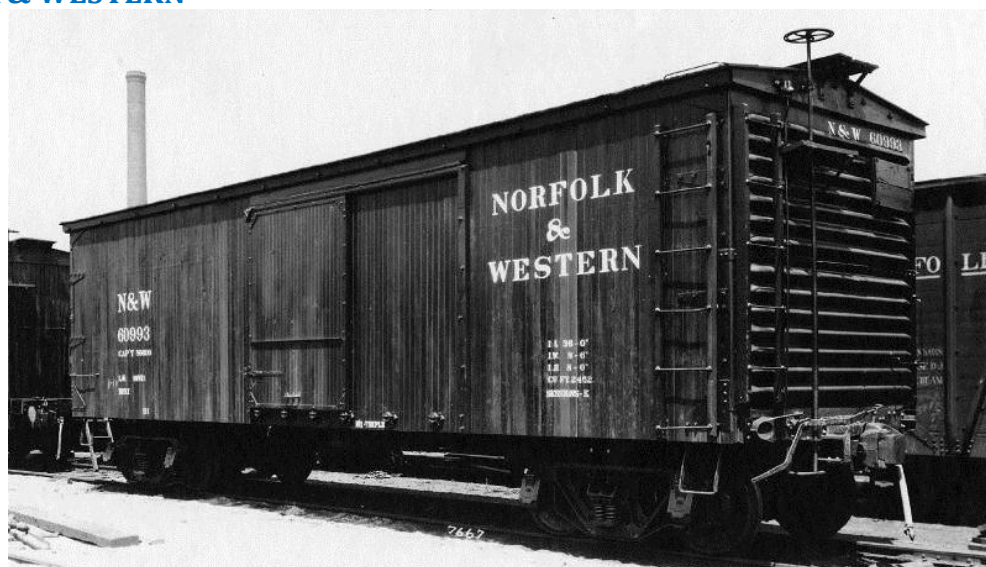
At this time it's unclear as to which paint scheme Accurail will release these cars with. The basic model is a good match for prototype DL&W boxcars, and they wore several different paint schemes over their 50 years of service.

#### 1405: LEHIGH & HUDSON RIVER



The L&HR, being a small coal-oriented railroad, didn't need a lot of home-use boxcars. They bought 75 cars in their 2101-2175 series in September 1907, and kept them until the end of 1953, when the last two dropped off the roster. As they were the only boxcars rostered by the L&HR between 1909 and the early 1960s they were rebuilt several times, including with new steel roofs and corrugated steel ends in the late 1920s. The cast steel sideframe trucks came many years later. The car pictured above was in MOW service in the 1960s, so diesel-era L&HR modelers can use a few of these cars too.

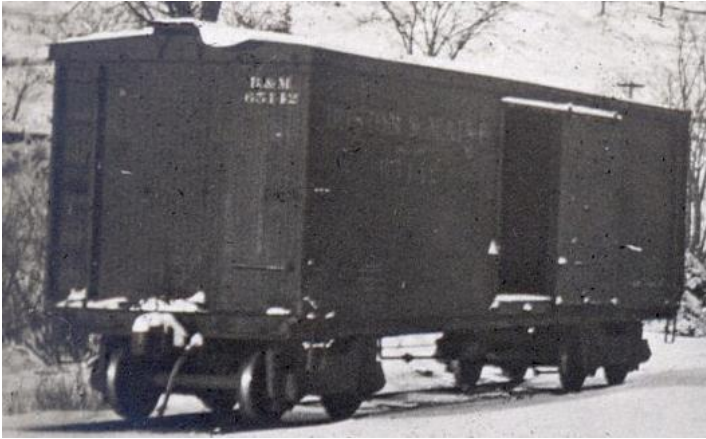
#### 1406: NORFOLK & WESTERN



This is a sort of an odd car. It's an N&W BI class boxcar which was common enough, and they and the similar BH class cars ran through the late 1940s. Originally built starting in 1904, the N&W rebuilt many of the 3,100 cars in these classes at various times in their lives. Sadly, the N&W did so with a huge array of different roofs, door hardware, and end variations, and didn't seem to keep good records of which cars got what sort of upgrade. To date, this is the only photo I've been able to find of a BI-class boxcar with steel ends, which it seems to have received in the mid-1930s.

Since they're 'outie' ribs this makes the Accurail model a stand-in, but another decent one. When and if someone decides to produce a more accurate BI in resin feel free to upgrade. In the mean time, if you're a pre-1950 N&W modeler stock up on a couple of these and several of the 1800-series kits, which more accurately depict the bulk of the BI and BH classes.

### 1407: BOSTON & MAINE



*Both photos: Boston & Maine Railroad Historical Society collections*

As with many other cars in this series, the Boston & Maine boxcars that resemble the 1400-series kits were all rebuilds. Between 1908 and 1913 the B&M built 3,720 boxcars with all-wood bodies and steel underframes. Most of these cars were rebuilt in the 1920s, with all of them receiving new Murphy-style steel roofs and about half receiving 7/7 outward rib corrugated ends. The cars utilized a large variety of truck types scattered all over the number series, and many of the rebuilds kept their Fox trucks to retirement. 265 of the steel-ended rebuilds were still on the revenue roster in 1945, but by 1948 all had been retired. Just under 200 of the cars were converted for use in the road's maintenance of way roster, and a couple did survive into the 1970s (and at least one car survives in a museum in Vermont).

Because of the ends (outies, not innies) and because of the prototype car's slightly larger exposed steel side sills, this is a stand-in model. It's a decent stand-in however, and since it would take sacrificing resin car parts to get correct ends, should be acceptable for anyone needing one or more B&M boxcars.

### 1408: DENVER & SALT LAKE



The Denver & Salt Lake railroad was bought by the D&RGW in 1931, which is where this boxcar came from. In the mid-1930s the D&RGW assigned an unknown number of 62000-series cars to the D&SL to replace that road's own ageing boxcars. The cars lasted in D&SL service until 1947, when the railroad was formally absorbed by the Rio Grande. The last D&SL-lettered 62000 dropped off the ORER by December 1951.

## 1409: MOREHEAD & NORTH FORK



*Morehead State University collection*

The Morehead & North Fork railroad was a four mile long shortline in Kentucky, whose main claim to fame was being one of the last common carrier railroads in the United States to run steam (only dieselizing in July 1963). The railroad's home road car needs were tiny, and it looks like this single ex-ventilated boxcar was the only box they ever owned. The car is most likely an ex-C&O boxcar, since that road was their only connection to the outside world. The car sits rotting away in Morehead as of 2016.

## OTHER PROTOTYPE ROAD NAMES

With so many of this kind of boxcar being built between 1905 and 1924, and with so many rebuilds not readily documented, there's no way that Accurail can hope to find or produce each and every possible road name that can be added to these kits. With quality photo archives being added online every year, and with more people digging through those archives, more possibilities will crop up from time to time. Here are a couple of prototypes that the initial release has missed.



The Illinois Northern was a Chicago-area switching railroad, and didn't need many freight cars. When they did buy equipment, they usually went to local reseller Hyman-Michaels to buy used equipment. That's where these cars came from, which look to be former C&O 84730-series boxcars. The IN bought them immediately after WWII, and the 51 cars of the 1600-1699 series lasted to 1954. The Youngstown steel doors are an issue if you want to use a 1400-series kit as a starting point, as is the radial roof.





*Ted Culotta collection*

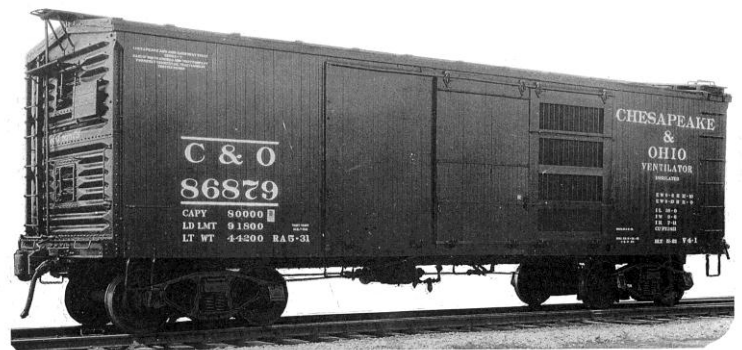
The Louisville & Nashville, on the other hand, was a large railroad with thousands of boxcars on their roster. Like most large railroads they updated and rebuilt their older freight cars to increase their useful lives. L&N 11289, shown here in mid-1947, was built in 1911 with a straight steel sill underframe, but with wood ends. The car was rebuilt with corrugated steel ends in the late 1920s. Almost all of the cars of the 10000-11999 series survived WWII intact, but all were off the L&N's roster by the end of 1954.

## KITBASHING POTENTIAL

This specific Accurail kit offers us several interesting kitbashing and car modifying opportunities that the 1300-series kits do not. The straight steel center sill underframe is what's especially important here, since it allows us to model a large range of cars. There weren't necessarily as many cars overall built with this sort of underframe, but there were more batches of smaller groups of cars, allowing us to model a wider variety of cars. More importantly, the straight sill underframe can also be modified with trussrods, adding a huge number of usually overlooked 1920s and 1930s boxcars to the list of possibilities. Some of the kitbashes will be fairly straightforward, while others are definitely challenges.



*AC&F Photo, Al Westerfield collection*



*C&OHS Collection*

These first two cars fall into the simple category. Add a second door to a basic 1400-series kit, and you've now got decent stand-ins for the C&O's 100 84630-84729 series auto boxcars, or their 500 86500-86999 series ventilated boxcars. The ventilated cars were the last short boxcars to run in revenue service for the C&O, with the remaining 100 cars coming off the roster in 1954. True, none of the C&O kitbashes I've mentioned will have this car classes' signature notched corners, but until someone steps up and releases all three car types in resin I'd think that these stand-ins will work well enough.



*Ted Culotta collection*

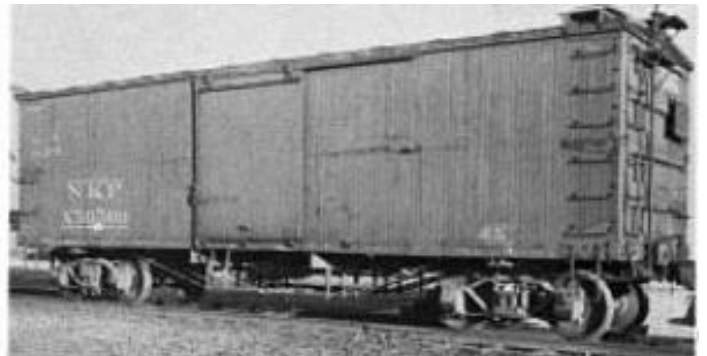
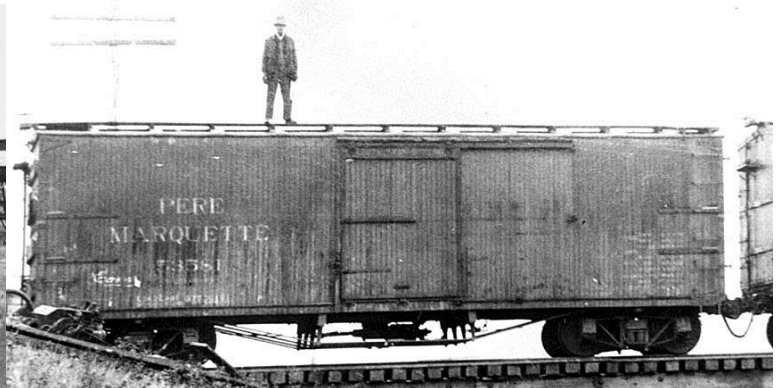


*AC&F Photo, Al Westerfield collection*

Some kitbashes aren't quite so easy. Several railroads had generally similar short boxcars with straight steel underframes, steel roofs and steel ends, but with unique spotting features. The Nashville, Chattanooga & St. Louis was one of these. Their 13500-16599 series boxcars, built in 1912 and rebuilt in 1927, and their 3000-3249 series ventilated boxcars (built 1923), accounted for over 60% of their boxcar fleet in the 1920s and 1930s, making them a statistically important car for any southern-region modeler. Making up 20% of their fleet up to the K-brake ban (700 cars or so in the early 1950s), these cars could still be seen rolling revenue miles in the transition era.

In general these cars match the Accurail 1400s pretty well. The real challenge with modeling these cars are the ends. Cutting through the thick side walls of these models won't be much fun, and once you do that you still have to find Hutchins ends to add to the models. [Westerfield](#) does make a [4-panel Hutchins end](#), but the ribs are "outies". Sunshine made the NC&StL's 20000-series rebuilds with "innie" ribs, but nobody's crazy enough to chop up that perfectly good resin kit for a kitbashed stand-in. Our best bet is to hope that someone comes out with 4-panel inward ends as a 3D printed part.

New Hutchins ends as an add-on superdetailing part would be a very useful thing, since many railroads used that appliance, albeit in small quantities. The D&H and PM were especially fond of these ends, and the NKP experimented with them too. When that road sold off most of their antiquated boxcars in 1932 the M&StL bought several hundred for grain service, and also ended up with cars with Hutchins ends. Having one semi-generic end on the market to fit these new kits would allow us to build models of well over 3,000 cars from four popular railroads!





The Pere Marquette, Nickel Plate, and Minnie-Lou cars also demonstrate what may well end up being the most useful type of kitbash possible with the 1400 and 1800-series kits: conversions to boxcars with steel center sills, but which also retained trussrods.



*NKP 27749 sits on the New Haven in 1936. Notice that the needle beams (the bars that hold the queenposts in place) are actually steel I-beams, a quick and easy way to tell that an old boxcar has a new steel underframe.*

This was an extremely common feature on boxcars between 1920 and 1945, but is generally overlooked by modelers. Simply put, very few ever notice this detail and assume that any car with trussrods has an all-wood underframe, and is therefore “Oldeny-Timey” and unsuitable for any period after 1920.



*LE&W 11023 Lawrence MA, 11/1910 (LoC 01865)*



*MC 48601 Dillonvale OH 12/12/1925 (CSU archives, W&LE collection)*

These two before and after photos are a good example of how radically a car could change during a rebuild. Both cars were built for the NYC Lines in 1906 to the same general design. LE&W 11023 is four years old, wearing its' as-delivered paint scheme, and is an all-wood car. MC 48601 was rebuilt just before 1916 and now has 7/7 steel ends, a steel roof, and the NYC's 'repair steel' underframe, first introduced in 1913.

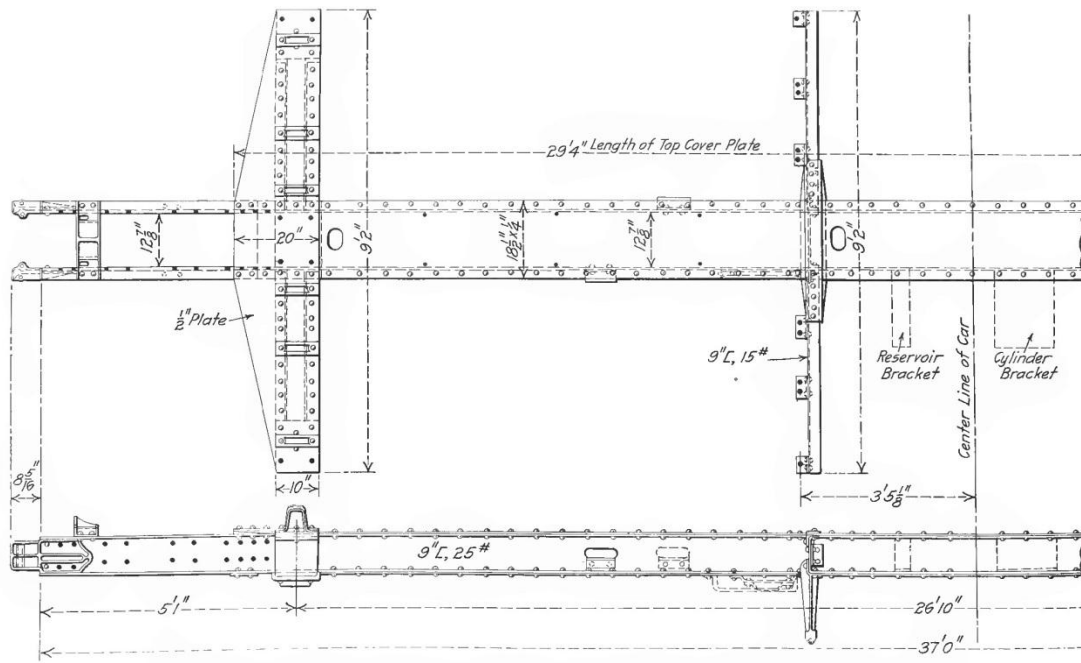
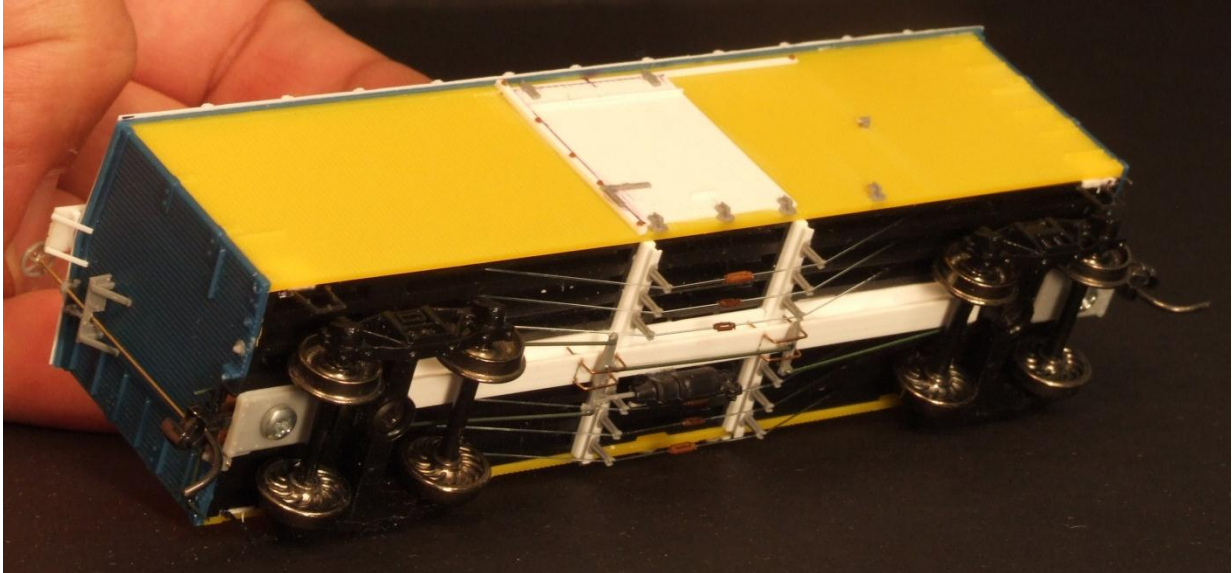


Fig. 418—Steel Underframe Used on the New York Central in Strengthening Wooden Box Cars.

*This half plan of the NYC's repair steel underframe for boxcars appeared in the September, 1914 issue of Railway Age.*

Fabricating a new underframe, jacking up an old car, and installing a new underframe, cost about 25% of an all-new car, so this was an economical method to add stronger cars to a railroad's roster and to extend the car's lives. By the beginning of WWI the various NYC lines had modified close to 10,000 boxcars in this way, and rebuilt 25,000 or more cars between 1922 and 1929. Many railroads followed the NYC's lead, meaning that cars with this sort of underframe would have been seen all around the country.



Adding trussrods to the underframe of the new Accurail kits will be a straightforward and simple process. I've added repair steel underframes to a number of my Roundhouse short boxcars, and the process will be a little simpler for these new kits. A little Evergreen I-beam, a few Tichy 10 inch tall queenposts, some 7 pound test fishing line, and a few turnbuckles are all you need, and can be added to a car in less than an hour.



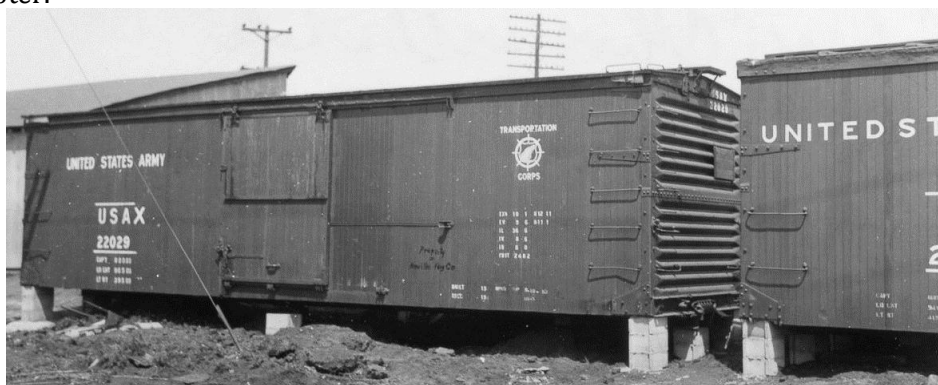


*DL&W company photo, Steamtown NPS collection, image X5796*

You can even use the 1400-series models for rebuilt boxcars that kept their all-wood underframes. IC 233509, shown here in Hoboken in 1925, is one of more than 2,500 1906-built all-wood boxcars that the IC rebuilt with steel roofs and ends in the mid-1920s. The IC retired all of their 36-foot boxcars by the mid-1930s, and these shorties were never as common or as typical as the bulk of the IC's boxcar fleet. But again, if you're modeling a certain time or a certain place you can always use this as a fleet-filling car option.

#### POSTSCRIPT:

I have no idea about the back story of this photo, but it floated through Ted Culotta's eBay auctions a few months ago. It shows two former US Army boxcars converted into farm sheds at some point soon after WWII. The July 1950 ORER doesn't show any USAX cars in the 22000-series, but does list 33 other cars in their roster that are less than 40 feet long (outside dimension). There's virtually no standardization at all to these cars, so it appears that they were all bought secondhand during the war. Gene Green once wrote that many of the boxcars used in the Joliet Arsenal were former M&StL and ITC cars, themselves mostly secondhand purchases from other railroads like the NYC and Nickel Plate. Since boxcars sold off as barns were usually stripped of their underframes (useless for farmers but valuable to railroads as scrap), it's impossible to know the exact origins of this car, but I suspect that it's a former NYC 1907-built boxcar that was upgraded with steel ends and a "repair steel" underframe in the 1920s. If so, the car does belong in this 1400-series chapter.



*Ted Culotta collection*

While having a green US Army boxcar on your railroad may seem a little too toy train like, it is appropriate in the right context (1940-1948, near a major military base or munitions plant). [Resin Car Works](#) recently released a [USAX twin hopper](#), so relatively close decals are available for anyone who really wants one.