

REVIEW **HO** Spring Mills Depot B&O Canstock Boxcar

Review and Photos by Tony Lucio

50-foot Canstock Boxcar
Pre-painted Ready-to-Run
MSRP: \$49.99
Undecorated Kit, MSRP: \$39.99

Baltimore & Ohio
(with translucent roof panel) –
6 road numbers
Chessie System
("early" w/ translucent panel) –
6 numbers
Chessie System ("late" w/ steel panel) –
6 numbers
CSX (w/ steel panel & plain door) –
6 numbers

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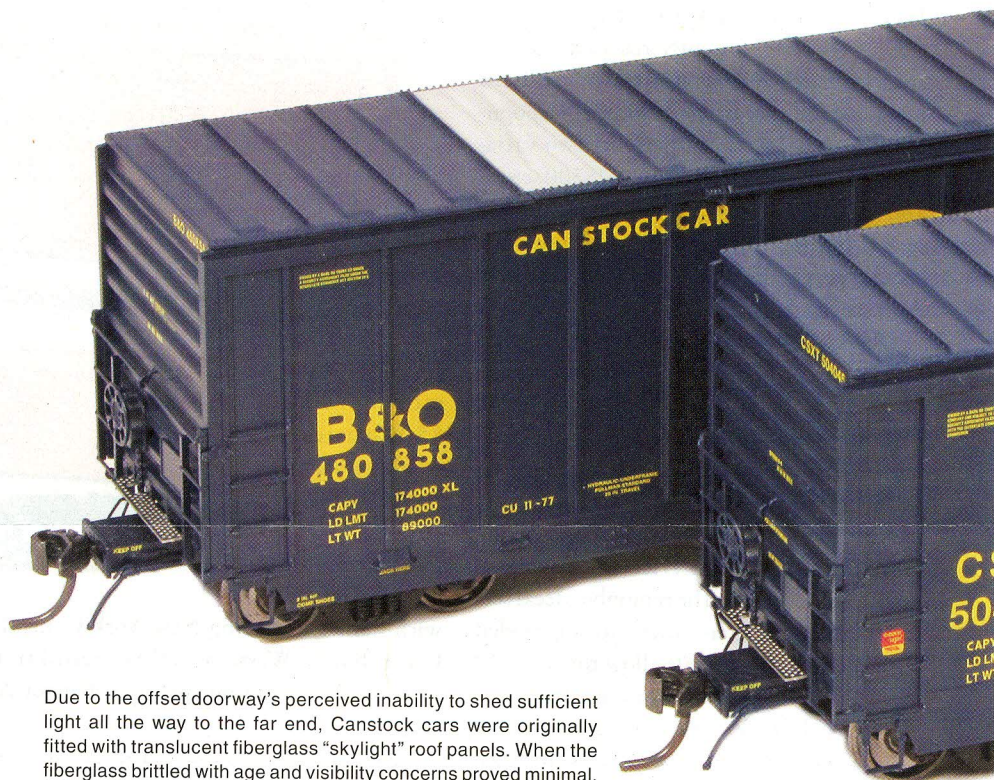
IN THE early 1970s, Baltimore & Ohio's development department pondered how best to handle steel coils used for making cans. It might seem a silly problem given the long-established success of moving coils with adapted gondolas, flats, and specialized cars. These particular coils — known as canstock — were no ordinary rolls of steel. Unlike the heavier-gauge steel used for automobiles, appliances, and general fabrication, canstock was very thin — as little as 0.006 inches thick. Though the coils were as dense as their stockier cousins, the outer layers could be easily damaged. Manufacturers used canstock to make containers for food, beverages, and other consumable goods, so it also had to be well protected from condensation and exposure to other contaminants. Many customers lacked overhead cranes or ran facilities configured for older cars creating another obstacle to overcome. B&O's answer was a group of 50-foot insulated boxcars with additional load-securing equipment for this purpose.

Unfortunately, there were a few problems with this first solution. For one, thinly rolled steel is still a dense load, with coils weighing as much as 25,000 pounds. Securely blocking and bracing palletted coils was expensive and time-consuming, and despite best efforts, load shifting and damage remained commonplace. The dimensions at play wasted space: a then-generous ten-foot boxcar doorway allowed only a forklift to place three of the largest, six-foot diameter coils at either end before getting stuck with no room to maneuver or load, which wasted capacity via dead space in the center of the car. What to do? A longer car would exceed its load capacity before meeting the length limits; a taller car to stack coils would be infeasible and unsafe at best; shortening the car to eliminate dead space would merely reduce the number of coils thanks to the door issue.

The solution was so brilliantly simple the problem seems like a barstool brainteaser: just move the door, and make it bigger!

You "Can" Think Inside the Box

By making the door 12 feet, 6 inches wide and offsetting it toward one end, a forklift could enter and load four coils in the car's "long end" and two coils in the short end, and then place two more in the doorway without entering the car. This netted a full weight load of eight coils instead of six, concentrated over the trucks, using the same 50-



Due to the offset doorway's perceived inability to shed sufficient light all the way to the far end, Canstock cars were originally fitted with translucent fiberglass "skylight" roof panels. When the fiberglass brittle with age and visibility concerns proved minimal, the railroad replaced them with steel panels. The detail on these panels is perfect, right down to the pattern (SRE diagonal on fiberglass or P-S bowtie on steel), fitment seams and elevated fasteners... look closely for the clues on the CSX car.





inches wide on either side to add the extra width. Another interesting quirk of the offset door arrangement found both opening toward the long end: one side to the right as usual, and the other to the left. The “backwards” door required modified and relocated latches. Massive, custom Evans bulkheads were lowered and set into guide tracks installed in the floor before the roof (with top tracks) was installed overhead. Height was not an issue because canstock coils were not very tall, so the resulting car was an unusually heavy 50-foot Plate B boxcar. The distinctive innovations didn’t end there. The roof was fitted with translucent fiberglass — a skylight of sorts — replacing the fourth panel from the “B” end to alleviate concerns about visibility inside the long end of the car.

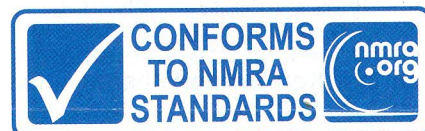
Pullman-Standard built 75 examples with delivery in February 1972. B&O saw these as an entirely new class, designating them B-105 “Canstock Cars” and emblazoning the name in proud billboard lettering along the car sides with matching B&O initials. Curiously, while corporate partner Chesapeake & Ohio lent development assistance, that railroad did not order any. However, the concept was significant enough to both roads to introduce the brand-new Chessie System image a few months later! In the summer of 1972, when EMD unveiled B&O GP40-2 1977 — the first brand-new locomotive to appear in Chessie paint — the railroad assembled a special public relations train using select rolling stock painted in the new Chessie System corporate image to tour the line and introduce its bold new look. Thus, Canstock Car No. 480800,

repainted and assigned to this train, became the very first Chessie System boxcar (an insulated boxcar in the same train wore a one-off experimental scheme). The rest of the Canstock fleet soon followed suit, making the original B&O paint a short-lived livery. The Canstocks have an impressive historic significance. They were the last signature cars developed by B&O, the last cars to receive new B&O paint before Chessie System’s introduction, and the first cars to be painted into Chessie colors.

The Canstock Car concept was shopped and promoted nationwide as B&O sought to capitalize on its development, but there would be no additional takers. Still, the design pleased B&O management enough to order an additional 75 cars (from Berwick Forge) in 1974. The Berwick cars were very similar, with the most notable difference being a peaked roof, as opposed to the first group’s flat P-S roof. Both groups proved durable over the years, but a few notable changes were made. Standard steel replaced the aged and brittle skylight panels during the 1980s. As the cars continued to wear under successor CSX, shop personnel replaced the doors with a different style during routine maintenance and repainting. A decline in canstock demand occurred as can manufacturers closed and consolidated, relegating the cars to general heavy-duty pool service. Though the

foot length. Less empty space meant more material at the customers’ docks per load and more revenue per car. A clean-sheet design also afforded a better provision for securing the loads: four huge, custom-spec moveable bulkhead partitions inside the car to block off the loaded coils in pairs. The cars also specified a cushion hydroframe.

B&O worked with Pullman-Standard to adapt one of the company’s existing designs to this new concept. The doors were similar to the familiar ten-foot P-S Youngstown design, but with a prominent “frame” of smooth flat steel 15



Rare prototypes like the Canstock car were formerly the exclusive domain of craftsmen, brass collectors, and kitbashers. Not counting myself among the former (and unable to source the old Quality Craft wood kit at the time), my first kitbash was a Canstock I made using an Athearn PS5344

kit. I based the car on a photo that I stumbled upon more than a decade ago. My kitbash is pictured on the left. It’s not too bad, but SMD’s model (right) outclasses it in every way. The progress of technology and manufacturing certainly puts us in a golden age of model availability!

Q&A WITH SPRING MILLS DEPOT

Most model railroaders can readily cite the various exits, buyouts, mergers, and consolidations of vendors over the last decade, though a number of new independent players have entered the market and found success in that time. While some carve a niche of high-end models or specific features for the mass-market, others focus on boutique items (usually as kits) for certain roads. Choosing a point of entry to the sales market is the lifeblood question for any company. Rarely does a new vendor make a splash with a high-end newly tooled ready-to-run car of a rare prototype of limited appeal, but that's precisely what Spring Mills Depot has done with its HO Canstock boxcar. Although Spring Mills Depot (SMD) has previously offered limited runs of custom-decorated equipment, the Canstock is an arguably enigmatic choice for market entry.

Nonetheless, whether lamenting the unavailability of a favorite prototype, correcting flaws on a common model, or basking in a well-done custom project and considering making more for sale, most of us have probably considered the business side of our hobby at some point. I thought readers might enjoy the view from one who has taken the plunge, and **Bill Carl** of SMD was gracious enough to indulge. From choosing a prototype and detail level, to tooling it up, to handling challenges, he and his business partner **Ken Braden** shared some unique insights.

Obviously, SMD's Canstock model is a leap beyond the old Gloor/Quality Craft wood kit. How did you decide to pursue the exacting detail on this car, as opposed to a more affordable, but less detailed version? It's clear you want to serve B&O fans specifically, but Canstocks are distinctive enough to possibly appeal to other modelers. Volumes have been written on the price versus detail versus market pool trade-off and there's no "right" answer, what is your personal philosophy on the subject?

First, we have to explain our business model. Ken and I have

day jobs that will never be replaced by model manufacturing. We basically want to break even on a project car and move on to another on our list of cars to do. This is mostly a labor of love. Ken is a B&O modeler, and I model late B&O and Chessie. As a side note, our next car will most likely be a railroad agnostic car.

Second, we didn't believe many would know what a Canstock car is. We figured it would appeal only to a certain discerning market, so we wanted to take advantage of modern tooling technologies and make the car as detailed as possible for that discerning market. We believed if we produced a less-detailed version, we would have a lot less sales and a lot more inventory sitting on the shelf.

Last summer, I heard there were aggravations working with the contractors to get the details right. Is there anything you'd like to share that we modelers would never imagine or appreciate, but "if only we knew?"

Communication is the key to a successful project. I reflected back to being in the service stationed in Germany in the 1980s and how hard it was to communicate with only my basic knowledge of the German language. We had to develop a commonality of terms (often using pictures), so all parties knew what each was talking about. Also, you shouldn't assume anything — that is a recipe for disappointment.

From the first sketch on paper, how long did it take to get this model to a boxed finished product?

It took just about two years to get this car to market. After we obtained blueprints, we spent a year comparing the drawings and hundreds of photographs, before finalizing the CAD work so the tooling could be started.

What is your favorite part of the Canstock model (prototype or miniature)?

I would say the translucent panel with the 15 bolt heads is my

favorite feature on the prototype car, which we captured beautifully (in my opinion). However, we accomplished something no other manufacturer has done yet on a model — printing "KEEP OFF" on the coupler sill — so that would be my favorite part of the model.

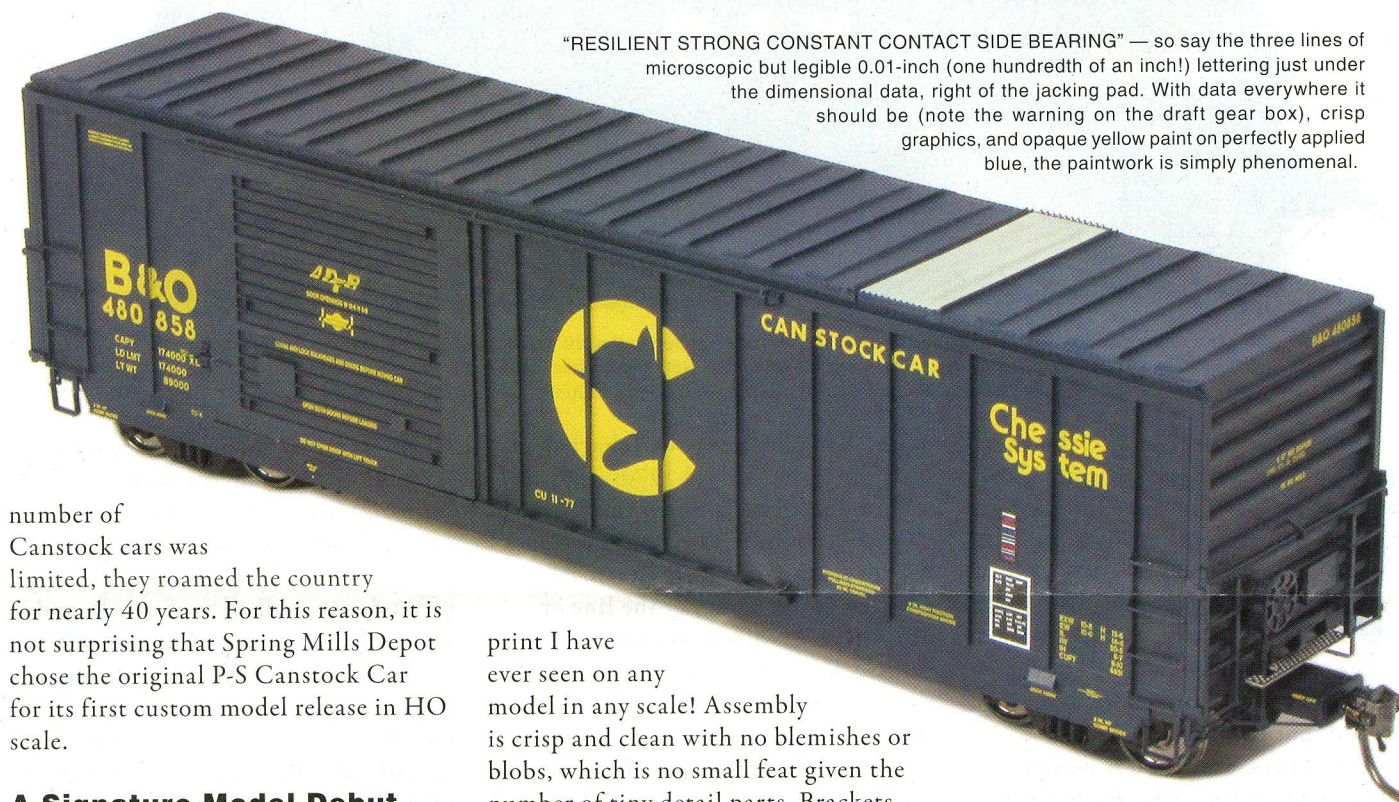
To a typical modeler, tooling a model might be oversimplified as finding or creating a reasonably accurate drawing of a car, converting it to CAD, and then getting a CAM shop to cut some tools to match. Obviously, there's more to it than that! How many people have to collaborate directly on the car and directly influence its appearance?

Many think that having a set of blueprints is gold. However, we found several dozen items that were drawn on the blueprints but not built; built but not on the blueprints at all; or even just executed differently from the blueprints. When we get close to finalizing the car's CAD work, we like to bring in some very trusted associates from the prototype railroad and model communities to analyze photos and go over the car to find any minute details that we may have missed. Doing so lets us catch a few details to make the Canstock car as awesome as we possibly could.

Without divulging secrets, is there any advice you would give to someone considering bringing a rare car to market? What about those who criticize every last rivet?

You need to start with a lot of money, have a lot of patience, and have good project management skills. Ken and I have plenty of project management experience through our day jobs, so we were able to overcome many hurdles along the way without getting too discouraged. As for the rivet-counters (or even worse, the rivet-measurers), no matter how many countless hours we invest in a project to make it as accurate as we possibly can, you just have to realize that you will not please everybody with every product. This is true for any company that makes anything in this world.

"RESILIENT STRONG CONSTANT CONTACT SIDE BEARING" — so say the three lines of microscopic but legible 0.01-inch (one hundredth of an inch!) lettering just under the dimensional data, right of the jacking pad. With data everywhere it should be (note the warning on the draft gear box), crisp graphics, and opaque yellow paint on perfectly applied blue, the paintwork is simply phenomenal.



number of Canstock cars was limited, they roamed the country for nearly 40 years. For this reason, it is not surprising that Spring Mills Depot chose the original P-S Canstock Car for its first custom model release in HO scale.

A Signature Model Debut

A deceptively understated black window box with little more than the Spring Depot Mills name and bullet-point feature list on the back greets the buyer; the modesty makes sense because the manufacturer doesn't distribute these to sell themselves on a hobby store shelf. Of course, if they were lurking at retail, the gigantic offset door as signature eye-grabber might be enough to seal the deal on its own, but right out of the box it is immediately apparent that you're holding something special. The car's detail level is simply astounding and instantly places these cars among the best state-of-the-(plastic)-art products in HO scale. A fully detailed underframe with wood plank floor, hydro-cushion, and complete brake rigging provide a fine foundation, and finely scaled stirrups along with metal coupler cut bars and platforms are typical high-end touches, but a vast array of painstaking subtleties delights your closer inspection. The lower door track is a separate stand-off piece, whose hollow relief and support brackets are rarely replicated in this scale. The eye-catching paint jobs are phenomenal: a satin finish bathes the car in royal blue with razor-sharp yellow graphics for vivid contrast. The lettering is marvelous, and the Chessie car brandishes a text bug of what might be the smallest legible

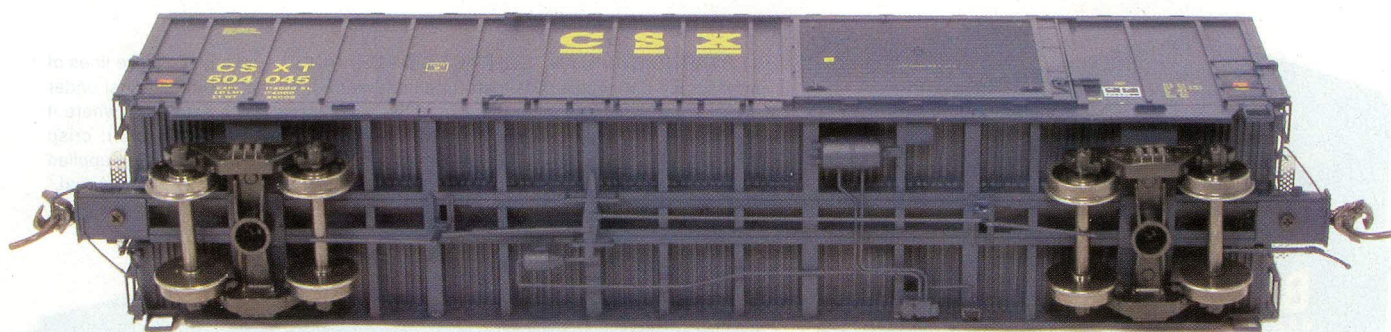
print I have ever seen on any model in any scale! Assembly is crisp and clean with no blemishes or blobs, which is no small feat given the number of tiny detail parts. Brackets, braces, seams, gussets, and rivets are all finely molded, and overall dimensions measure up precisely.

The most impressive feature might be the attention paid to the roof's signature "fourth panel." Not only is the appropriate translucent or steel version with the correct pattern installed per prototype, but the additional seams for this single panel are finely molded, while rivets securing it are slightly elevated in relief compared to others — the effect is even visible in profile! Sure, the white panel on the early cars is immediately obvious without such detail, but even the standard steel replacement panel retrofitted by Chessie and CSX is betrayed by a distinct edge overlapping the side of the roof. It is so subtle as to be nearly invisible, making its inclusion all the more incredible once you see it.

Differentiated detail distinctions do not end there. Not content to modify the roof panel, CSX also replaced the doors with a homebrew design that shed the wide Youngstown design in favor of a simpler, edge-to-edge corrugated panel with a uniform pattern. Inclusion of this door, used on CSX models only, and tooling a one-off part to bring a small pool of cars to market is commendable. The 1972 B&O models sport its own unique touch with slotted coupler platforms as they originally

had when built (Chessie swapped these for round-hole platforms when the cars were repainted into the cat scheme). Notably, Spring Mills Depot provides all the necessary parts to build any possible variant with its undecorated kit: you can mix-and-match the roof, door, and platform details to recreate any specific car, or devise one of your own specifications if freelancing your own road. You could plausibly build the car with the doors open as well. Flexibility in a kit like this is wonderful.

SMD rounds out the hardware package by including 100-ton roller-bearing trucks with insulated free-rolling 36-inch blackened metal wheelsets and Kadee knuckle couplers. These details check within gauge, as they should. The car's mass tares out at 4.75 ounces, which is a tad over the NMRA's recommended 4.5 ounces (perhaps the unseen bulkheads' extra weight is simulated as well, ha!). Given the overall fidelity of the car, the non-scale couplers surprised me. However, compatibility may be the name of the game. Undecorated kits do not provide couplers, allowing the modeler to select a favorite. If these models have any flaw at all, it is their super-detailed nature making them veritable divas, because those fine details are fragile indeed. Not tank car delicate of course, but the stirrups and coupler bars



The car's underframe reveals cleanly assembled superb floor and brake rigging details. The relief valve on the side sill is seldom seen on a model, as is the standoff door track. A door that slides

open to the left would be unusual even if it weren't so gigantic. Note the latches moved to the opposite side. The door's edge-to-edge corrugation pattern is a CSX-only feature.

will be ready fugitives, and the brake rigging will prove especially fine, if you handle these like typical boxcar models. Spring Mills targeted the discriminating market, and it shows!

A Model for Conversation

The Canstock model is as unquestionably fabulous as its price should warrant, but the prototype's low build numbers, unorthodox design, and assigned lading may still have you wondering: should you get one? Sure! There weren't many built, but Canstocks roamed the country soon after construction, and online photos

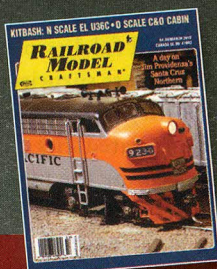
place them all the way to Tehachapi, California, in the mid-1970s, so these eastern-built cars can still run through your western line. The B&O version has special historical significance, whether you are a fan of the line or not. Chessie is always popular, but the Canstock is a standout in her fleet for the huge "Ches-C" logo in the center of the car, as Chessie branded few other cars so boldly (some eight-door, 86-foot Hy-Cubes had similar "big car" presence but arguably due to size, not as visually significant as on this 50-footer). In the modern era, CSX rostered dozens for nationwide interchange.

CSX recently retired its Canstock Car fleet; however, many are being retained for maintenance-of-way and other assigned duties, so these durable cars will continue in service. Add the huge offset doors, oddball roof panels, and stocky Plate B clearance to the car's historical significance and bold paint, and it should not be hard to justify rostering at least one to pique, puzzle, and casually educate visitors to your railroad. These cars show that sometimes the best use of a box requires thinking inside it, and Spring Mills Depot certainly did so with a most impressive debut model.

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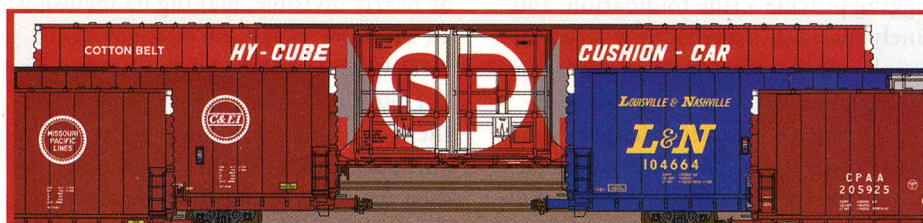
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