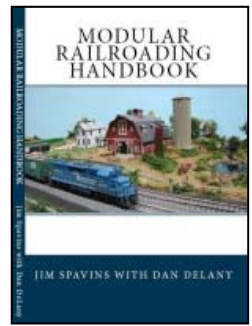




Building a Drawbridge For a Module





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Drawbridges and modules are made to go together. Animation on modules generally draws a crowd at a train show and drawbridges are one way to capture attention. However, building a drawbridge for a module offers a unique set of challenges.

The module discussed in this article is the second drawbridge I built for a module and allowed me to implement some lessons learned from the first module. This module features a prototype bridge between Old Lyme and Old Saybrook, CT. I had many factors involved in my initial design process that affected the overall design of the bridge. The three I was most concerned with were the cost, the size of the finished bridge, and how easily it could be moved when once completed.



At the time when the module was constructed I was a high school student, I didn't have large sums of money to spend or an unlimited amount of time. This quickly ruled out scratchbuilding and many of the more expensive kits. I settled on using the Walthers' double track truss bridge kit.

This had many advantages in that it was fairly easy to modify, fairly rugged, and most important, at a reasonable cost. In addition, the kit offered some inherent strength by its own design which is important to make

sure the finished module is durable enough to with stand being moved from train show to train show.

Of course, as with any prototype-modeling project, a fair amount of selective compression would be in order. Since the drawbridge was going on a four foot module, I needed to selectively compress the bridge from the prototypes ten sections down to four. If I had the ability to transport a longer module, I may have been able to bump up the size or add more sections. By using the same colors and placing the bridge in the appropriate setting, the bridge is easily recognizable by those who know the area.



Since the bridge was going on a module, I needed to be able to move it safely, as well as quickly and easily. Many design choices need to be made because of this. First, I needed to be able to take all of the sections of the bridge off the module during transportation. By drilling holes in the piers and abutments, and adding a short section of brass rod to the underside of the bridge, I ensured that the bridge would line up in the same spot every time. Second, I needed a simple mechanical system to raise and lower the bridge. The Connecticut River Draw is a rolling bascule type drawbridge. Many times in the rush and confusion of setting up or taking down layouts at shows, things get broken. If a system that allowed the bridge to roll back were to break, the module could be out of service.



Instead of rolling back, the model bridge turns on a single fixed point. While not the best arrangement in terms of appearance, it still draws a crowd at a show. It would be nice to design a system that would allow the bridge to roll in a prototype

manner, but from building a few of these drawbridges, it just isn't practical.

Finally, getting power to the tracks is accomplished through the use of plugs built into the base of the bridge and the piers. This allows solid connections to the mainline feeders and doesn't rely on rail joiners to conduct power.