



“Tools & Tips”

By Dennis Ivison

Graphite

“Don't You Clean Your Track?”

I can see the question in their faces, the looks exchanged between visitors, the burning question they are dying to ask but are too polite to broach the subject. The quick swipe of the track observing the smudge on their finger. Then finally when they can't hold it in any longer, the question is blurted out, "Don't you clean your track?" My response is always, "No, I haven't cleaned it in years. Do you want to run some trains?"

Graphite is a wonderful thing! I've used it on my layout for over eight years, and since I started I very rarely clean my track. No rubbing alcohol, no silver polishing compound, no pink goo, and no Bright Boy (except in certain circumstances, like when I've worked on scenery or ballasted the track).

When I started my newest layout, which became the South Pacific Coast Lines, I wanted something different than my previous two pikes. My last two layouts were the Southern Pacific in Arizona and the Southern Pacific in the Imperial Valley, both desert settings. For the current pike I envisioned my trains winding their way through several tunnels and tall stands of pine, redwood, and Douglas Fir. Keeping my track clean however, would be a fairly impossible task if I could barely fit my hand in between all these obstructions. All of the previously mentioned solutions were unsatisfactory. Plus, I'd drawn the ire of some friends who regularly brought their equipment to run on past layouts since they didn't like sharing my pink goo track cleaner. When I spoke with a model railroader I met on vacation some time back while I was visiting his layout, I discovered that he used graphite to keep his track in good running order. He explained that he had regular visitors and needed to keep his track operational on a moment's notice. So, I thought I'd give it a try.

I built the benchwork and laid some basic track work while I was deciding on what my next layout would be, with the final decision hinging on the success of the experiment. The rails were given a coat of graphite, and I began running trains while I searched for a prototype. Three months later I was convinced, and the SPCL was born. As scenery progressed and the track plan was finalized, I still hesitated to place tall trees in front of the tracks, and all six of my tunnels were built with lift-off tops. A year later I was convinced that graphite was the solution and the scenery took a serious turn towards fulfilling my vision.

Graphite is a good conductor of electricity and therefore a perfect coating for model railroad tracks. It is also used in industry for its self-lubricating and dry lubricating properties. If you Google it, you'll find warnings that it causes pitting corrosion when used on stainless steel and is corrosive to aluminum in the presence of moisture, but no mention is made of causing problems with nickel silver. I've been using graphite for over eight years with no problems. As great as graphite has proven to be, it is not fit for all applications. One down side is that it is a lubricant, and one place on my layout that I've seen a degradation in performance is on my logging line. I have an eight foot stretch of track with a 2½% grade around a sharp curve followed by a tight S-curve. I also weight my cars slightly above NMRA recommended practices. These factors along with the lubricating properties of graphite have led to an estimated 30% reduction in the number of cars that can be pulled/pushed up the hill on this stretch of track. This track is set back from the edge of the layout and is behind several foreground obstacles and would be impossible to keep clean with a Bright Boy. Graphite has allowed me to put this logging line into operation. Plus, I've turned this negative into a positive by requiring the use of helper engines, or by necessitating the doubling of the hill into my operational schemes.

Graphite sticks, sometimes marketed as woodless pencils may be found in any art supply store and are inexpensive. I don't use liquid graphite (graphite suspended in alcohol) because it is messy, difficult to apply, and more expensive. Graphite sticks come in various hardness levels and have an alpha numeric designation. An "H" in the designation indicates it is hard; the number of "Bs" (B, BB, BBB) gives its

blackness; and the number its relative hardness. The larger the number, the softer the stick: 3 is softer than 2, 4 is softer than 3, etc.. I usually buy a 5B or 6B stick because the softer material goes on much easier.

Apply the graphite by rubbing it onto the rails just like you would a Bright Boy. There is no need to reach into tunnels, or around objects because the wheels of the locomotive and freight cars will spread it around the layout well. Remember, it CONDUCTS ELECTRICITY , so DO NOT put it on your track while your system is powered. It gets really hot really fast (it conducts heat) and will short out your DCC system. So remember to shut all power off prior to application.

One additional bonus is that graphite is great for weathering. Rub some on grab irons, brake wheels, steps, or anywhere you want the look of exposed steel. I learned this technique from my armor building friends and use it extensively for both of my hobbies, model railroading and World War II armor. Give it a try, you won't be disappointed.

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