

# COOL TOOLS

Several members have submitted interesting Tool related articles, so they are combined, here. - Editor

The big wrench shown in the picture, called a Reynolds Wrench allows a person to hold the head of those difficult wheel mounting bolts inside the wheel. The bent wrench allows access from the outside by inserting the wrench through the holes between the spokes. Then the wrench is held from turning by the spokes themselves. If you choose to bend one yourself it may take some experimenting. The shape is different for cars with flat fenders such as a MT-14 than it is for round-fender cars, like the MT-19.



photo by Dick Ray

Have you ever needed a 1/2 inch combination wrench to use in a tight application where you can't get a socket on the nut and there was no room to swing a normal length wrench? Most of the use of a combination wrench is in turning a nut after it has been loosened. Often the short wrenches like these allow turning the nut a half turn at a time, when a normal length wrench can only do one flat at a time.

Keep them as a set on a short piece of aluminum wire so you don't have to search for them. - Dick Ray



photo by John Miller

Several people asked about the tool being used in the picture on page 8 of the Jan / Feb 2009 issue of the SETOFF where several folks are "digging out a crossing". Here is the tool we made to clear flange-ways.

- 4" x 9" piece of 3/16" steel plate
- Cut 2.5" deep slot 1.5" from side.
- Bend large section up at 30 degree angle.
- Bolt 4" pipe to plate.
- Add bicycle grip to end of pipe.

Place large section on rail head and scrape away. You could adjust slot depth and bend angle for deeper flanges.

- John H. Miller

If you ever use castle nuts you know how hard it can be to find the cotter hole in bolt. Before threading on nut mark the end of bolt with a marker pen. If the nut end is out of sight mark the head. It isn't perfect but it gives you an idea where the hole is.

- Jim Spicer



photo by Jlm Spicer

## CHECKING AXLE/WHEEL INSULATION

BY PAT COLEMAN

During the Camas Prairie run in late May my MT-19A triggered the crossing signals at the first stop leaving Lewiston. This car has relatively new insulating cones and has not caused this issue in approximately 14,000 miles of operation except for one exception described later in article. When tested with a continuity meter a few miles out on the run the EC detected low continuity on left side and high continuity on right side. The continuity was through all wheels, indicating an issue with the brakes. One person thought a couple of cotter pins were marginal in their proximity that allowed the continuity, but resetting the pins did not resolve the issue.

Shortly after finding my car was the issue I went through two crossing with signals without setting off the lights. Yet when we checked the wheels we found the problem still existed.

Bill Andrews felt that the collection of dust/dirt on the end of axle could be bridging the cap so he took a pointed object and began scraping the dirt off the end of axle in the area of the washer and the insulating cone. I used an aerosol can of Electric Motor Contact cleaner and sprayed the ends of the axles and into the wooden brake shoe linkage. That is when we found a loose nut on the bolt used to connect the liner and the shoe. We replaced the nut with a Nylox and when we checked for continuity again we found the wheels were isolated as they should be.

Do we know which "fix" corrected the issue? No.

Interestingly we had two more incidents of triggering the signals. One by another car and once by the dome liner push cart.

Three days later while my car was back on the trailer I pressure washed all the running gear as an added precaution.

I should note that I did set off signals on a Northern California run about 4 years ago, the car had been feeling squirrely and when we raised the car on turntable we found the rear axle had broken inside the rear chain hub.

See you on the rails!

