



# Twelve Ways To Get Smoother Operations (CONTINUED)

By Jim Hediger, Senior Editor at Model Railroader

# Check and adjust wheelsets

Wheelsets that are in gauge and centered on the axles are essential. I check every wheelset on every piece of equipment before it goes on the railroad. Most model manufacturers work to reasonable tolerances, but variations in gauge do occur. Two notches on the side of the NMRA gauge make it easy to check this dimension.



Wheelsets that are out of gauge can generally be adjusted by

twisting a wheel along the axle until they match the gauge. Just be careful to keep the pair of wheels centered on the axle or you'll wind up with a dogleg truck, where both axles may be in gauge, but the truck's angled tracking forces the flanges into the rails making them very prone to derailment.

### Inspect and adjust the trucks

Inspect the trucks carefully and make sure all of the wheels contact the rails with even pressure. Cast, rigid truck frames sometimes warp slightly during shipment or storage. If so, they can be warmed under hot tap water and gently twisted until they're square again. If sprung trucks do not equalize smoothly, look for casting flash on the moving parts and carefully remove it.

## Adjust truck mounting

The trucks should be mounted on the car so they swivel freely. Any stiffness here forces the wheel flanges into the railheads; where they'll find any imperfection. Both trucks must rock a little under the carbody to handle slight irregularities in the track.

I've also found that one truck can be kept fairly tight to keep the carbody from wobbling from side to side, but then it's essential to leave the other truck fairly loose.

## Use minimum lubrication

Couplers should be lubricated with powdered graphite Teflon as those don't attract dirt. A little puff of lubricant does the job and lasts a long time.

Needlepoint wheelsets running in acetyl plastic sideframes seldom need lubrication unless they make noise. In such cases a puff of powdered Teflon does the job. Oil isn't recommended as it dries out and turns to a gummy residue that adds a lot of drag. Some petroleum-based oils will also damage the plastic in the sideframe.

Brass or metal trucks get a drop of light oil only if they make noise (the squeaky wheel gets the oil). Over lubrication seeps out and may damage the paint job.





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# Make running repairs

Everything I've covered so far can be done as you build your equipment fleet. But what about the cars already on the layout? A hard-nosed inspection of every car about once a year will reveal all sorts of things that have changed due to the wear and tear of an operating layout. The last time I did this major inspection only about ten percent of my veteran cars passed all of the standards!

To repair the numerous bad order cars (a prototype term for cars needing repairs), I sort them by the degree of work required. You'll find most require only minor repairs like adjusting the couplers, loosening a truck screw, or adding a bit of lubricant.

#### Maintain the fleet

Now that everything is up to standard, the trick is keeping your car fleet in top shape. On the Ohio Southern I'm now following a one-strike maintenance policy. If a car derails for any mechanical reason it's bad-ordered at the next terminal for delivery to the car shop (workbench) for further inspection and repairs.

#### Stay hard nosed

Many experienced modelers remain willing to put up with derailments as the price of running trains, but that's a rationalization to avoid investing the time it takes to make the necessary adjustments. Observe what's happening as the trains run and be hard-nosed about taking care of problems as soon as they're identified. After a while, you'll find fewer problems which need attention.

With the quality of the equipment we have today, there's no reason to put up with derailments any more. Putting in the five or ten minutes required to eliminate specific track problems, change-out bad wheelsets, and adjust each car makes an amazing difference in how your railroad performs - even when visitors are present.