

# PREVENTING TRAILER TROUBLE

BY DEAN MARK

Well, with spring's arrival, you have dusted your car off, gone under and over it, checking that it is safe, running well, and it is ready for the excursions to come.

BUT! What about the trailer that is going to transport your car? When was the last time you did more than check the air pressure of the tires, and made sure the lights were working? What else is there, you ask? Let's start up front, and work our way back. Look the bolts and welds over carefully. Look for any signs of stress. Cracked paint that follows a weld is a good indicator of stress. Wear marks from moving washers are another.

The entire trailer should be inspected periodically for weld cracks, stressed or fatigued metals, or any other sign of trouble.

The hitch coupler is very important to the safe towing of your trailer. Have you lubed the ball pocket? Does the latching mechanism need adjustment? (These parts do wear, and quickly if they are neglected.) Latch the coupler onto the ball then lift on the trailer tongue. If you "feel" movement you should look into it. Having a coupler that is loose can lead to a trailer-vehicle separation, and even with safety chains, this is not a pleasant experience! Most couplers have an adjustment to them. How is the coupler fastened to the tongue? Is it bolted, is it welded, is it both? Put a wrench on these bolts, and make sure they are tight. A well installed coupler will have washers at all mounting bolts.

We fasten our safety chains to our trailers with grade eight bolts, nuts and washers. They are easily replaced, should they become worn, but be sure to use the correct grade and strength of chain. We use a very heavy chain, with hooks that are proper for the job they are to perform, with retaining latches.

Have you ever caused a "jackknife" situation with your trailer? Ever consider the stress put on the whole trailer, but especially the tongue, when this occurs? Any time a jackknife occurs, you should inspect the entire tongue, especially at the coupler, the tongue body, and the connection(s) to the trailer body. As you move back, along the tongue and supports, are there any

dents, rust, or other sign of possible weakness? Keep looking. Are there any signs of wear? Are the bolts secure? We recommend that you remove the bolts where the tongue-supports fasten to the trailer body at least once every two years, and inspect the hardware. Replace if there are any signs of wear or fatigue. If there is significant rust, the threads of the nuts or bolts could be compromised, so consider that, as well. If the holes that the bolts pass through are worn, they should be repaired, as well. If not a safety issue, this, at least, affects the way the trailer travels down the road.

From here we move to where the spring shackles attach to the trailer body. This is the highest stress area on your trailer. Every bump, pothole, twist and turn you make with your trailer is transmitted to these shackle points of axle attachment. Every time you back your trailer into a bumper these points take the hit the hardest. You want to be especially vigilant of the welds at the shackles and for cracks or torn material. One good pothole can cause a great deal of damage. We once had a commercially built trailer break off a shackle, in a relatively mild pothole, due to improper weld made by the manufacturer.

Unload the trailer, put it up on jack stands and get underneath it. Look carefully at the U bolts, mounting plates, nuts, etc., as these should be checked quite regularly for tightness, and be free of visible wear. The springs and mounting bolts should also be looked at during this inspection. Look for broken or cracked leafs and for leaves that are out of alignment. Any of these conditions should be addressed right away.

Next, look at the wheel bearings. In normal use, we like to remove, clean, inspect, repack and properly reinstall the wheel bearings every 2 years. If the trailer is used more frequently, or in harsh conditions such as extremely wet or dusty conditions check them yearly. Be sure to clean and inspect the race, (cup) surfaces, as well. Make sure the dust cap fits snugly, and that the bearings are properly adjusted.

Now we want to take a look at the tire

rims. Rims should be inspected for excessive rust, especially around the bead and the valve stem connection, and for any cracks or signs of fatigue. Aluminum rims especially should be inspected at the bead, for wear, each time a tire is installed. This area can wear, and allow a tire to slip from the bead. And, of course you want to inspect the lug hole areas, for wear or cracks. Lug nuts can and do work loose, so proper torque procedures is imperative. Are the lug bolts in good shape? Is there any indication that the rim has been marking the bolts? If so, somewhere along the way the rim has been loose, and these bolts should be replaced.

Does your trailer have brakes? If so, when was the last time you inspected them? You say they are working ok, so what could be wrong? You will never know, unless you look! Inspect where the mounting bolts go through the backing plate to be sure they are tight and not worn or damaged. Do the same with the plate itself. The holes and pins for the springs and shoe retention should be looked over carefully for wear or signs of fatigue. Excessive rust on the plate could be a sign of overheating. Overheating of the brakes system can cause a failure. If the rust is flaking, it is definitely time to replace the backing plate. Of course, the shoe braking surface is another inspection point. Shoes must not be allowed to get too thin, as this can allow poor contact with the brake drum, and inefficient braking. The drum should also be carefully inspected, for cracks, and excessive rust. Again, if the rust is flaking, consider replacing the drum.

Most trailer brakes are electric. These have an electro magnet that activates when the tow vehicle's brake pedal is pushed. The wires to the magnet should be carefully inspected for breaks or cracking, and should be replaced if these are noted. Open cracks can allow water into the wire, and allow corrosion and possible failure. The inner surface of the brake drum that the magnet rides on should be fairly clean and smooth, for efficient and safe braking. How does the trailer handle, especially when you apply the brakes? Does it pull to one side? If so, the brakes are likely out of

adjustment on one side, or both, and should be properly adjusted at the first opportunity. And, if you are not comfortable with your knowledge or ability to work on your trailer brakes, by all means, you should seek professional help, to keep you, your trailer, your motorcar, and the traveling public at large safe. Same goes with all inspection of your trailer. If you do not feel qualified, seek the professional that can offer that peace of mind.

You also want to look over the winch that pulls the motorcar up onto the trailer. Make sure it is adequate to pull the load that you are asking it to. Follow all winch manufacturers' instruction for care and servicing of the winch. Make sure the winch is securely and adequately fastened to the trailer, and that none of these fasteners have worked loose, or cracked, etc. Occasionally, you should run all of the cable out and inspect it for torn strands and adequate fastening to the winch. If you have ever caught your hand on a strand, you will definitely want to replace that, as soon as possible. Remember, you should always wear gloves when handling the winch cable.

The remaining items are more routinely inspected (tires, brake wiring, loose fenders, etc) so we will save them for another day.

Each time we stop with our trailer, we do a walk around inspection. Just looking for anything obvious, that a problem is coming. We especially look at the coupling, the safety chains, and the wire connections. Feel the wheel hubs, because a hot hub could be a sign of a bearing going bad.

And all the trailer inspection in the world will do little good if there is not a good hitch on the tow vehicle, so don't forget to look that area over, as well.

I hope this has stirred a little thought in some of us out there, to give the trailer a little consideration as we get into the swing of the season. Be safe, and hope to see you on the rails.

Dean



# RIDING WITH JOE

BY JIM MCKEEL

The excursion was underway! Joe Speeder and the other operators were out for a great run on one of the best kept secrets in the hobby. It was a little known branchline of a major railroad that had been spun off to a shortline a few years ago. It ran along a beautiful river valley and around some rolling hills. Everyone was excited about the excursion and the barbeque that would be held at the turn-around point. The operators all had a great run during the morning portion of the trip. All of the cars would be turned upon arrival at the turn-around point so they would be ready to roll as soon as everyone finished lunch. Joe rolled to a stop, raised his rail sweeps, lifted up the rear of his M-9, and spun it around. The smell of barbeque was in the air and that was only increasing the anticipation. Joe rolled his car back to where the other cars were stopped and "tied her down" so he could get in line for lunch. Wow – what a fantastic barbeque pork sandwich with fresh, hot baked beans and coleslaw!!! Joe savored every moment! Finished with lunch, he laid back under a nearby tree for a rest while everyone else finished.

"Load 'em up" the excursion coordinator hollered. Everyone headed for their cars with a smile of contentment on their faces. A great day, a great lunch, and now it was time for an enjoyable trip back to the point of origin. Off they went. Joe settled down in the seat and relaxed as he rolled out of town. Joe was now near the back of the pack of twenty five cars after being the third car on the trip out. He was casually following the group at a safe distance and a relaxing speed. Joe was enjoying the ride and the scenic journey and was allowing plenty of space between him and the car ahead. About half way back to the point of origin the line passed through a small community with a few houses on both sides of the tracks. Joe noticed a group of young kids running away from the tracks as he entered the community. He wondered what they were up to as he watched them run behind a nearby house. Joe heard a bang as his car lurched into the air. The

next thing Joe realized, his car was bouncing down the ties and turning sideways. Joe hung on until his car came to rest. He jumped out to flag the following cars. He then started looking around trying to figure out what had just happened. He followed the marks left by his car back a short distance and found where the wheels had hit the ground after leaving the rail. He saw some debris that appeared to be crushed ballast on the top of the rail at several places just prior to where his car had hit the ground. Joe then realized what the kids had been doing and why they were running away from the tracks as he approached. They had placed several pieces of ballast on top of both rails after the car ahead of Joe had passed by. Joe wondered why he hadn't noticed them and, more significantly, why his rail sweeps had not pushed them off the rail out of his way. He went back to his car to check his sweeps, only to find that they were not in the lowered position. He had failed to put them back down after turning his car around at the lunch stop. Joe hung his head as he realized what he had allowed to happen and how much worse it could have been. Joe sure wished now that he hadn't been in such a hurry to get in line for that barbeque.

Did Joe violate any NARCOA rules? Unfortunately he did. Section I, rule # 21 states as follows: "Rail sweeps, if the motorcar is so equipped, must be in the lowered, or working, position when the motorcar is in motion. The rail sweeps shall be properly adjusted so that they are within close proximity to the head of the rail when in the lowered position in order for them to properly clear items off the top of the rail." Joe should have been more careful and ensured that he had put his sweeps back down in the proper operating position before he headed for the lunch line or before departing after lunch. Now, he had a bent axle to replace and had lost some points due to this incident.

