



## Trailer Disasters and Near Disasters

You may find it hard to believe that some of these things actually happened, but they did. The surprising thing is, it is often easier to see the problem after an accident occurs and people say, "I should have checked the weight. I just didn't think about it." With a SHERLINE scale you can not only think about it, you can actually do something about it. Don't let anything like this happen to you:

- A race car owner loaded his enclosed trailer with the race car carefully balanced over the axles, but with all the tools and spare parts toward the front, severely overloading the hitch on the motor home tow vehicle to the point welds start to crack. (The race car owner was the owner of this company, and that near accident led to the development of the Sherline scale.)
- A farmer loaded a 4-horse equestrian 5th wheel trailer starting from the front with bags of feed from floor to ceiling until the gooseneck actually snapped off! It is fortunate he never got this overloaded trailer onto the highway.
- A small cargo trailer rated for 3000 pounds was loaded with asphalt roofing shingles until the tongue bent and the tires flattened. The company engineer learned of the failure when the owner complained to the manufacturer that the trailer failed when it was "only half full". (The load was later measured at 13,000 pounds!)
- The owner of a small travel trailer loaded a number of heavy 5-gallon drinking water bottles in the very back where they would be "out of the way" during a trip. After speeding up to pass a truck, he pulled back into his lane and the trailer went into an uncontrollable oscillation. His family was terrified as the car and trailer pitched from one shoulder to the other, and he was very lucky to regain control before the rig flipped or went head-on into another vehicle. (Remember the old saying, "A pint's a pound, the world around." Liquids are heavy. A full 5-gallon bottle or tank weighs about 40 pounds.)
- The owner of a new cargo trailer from a major manufacturer thought his truck sagged a bit too much when he lowered the trailer tongue onto the hitch. He checked out the tongue weight and found that it was over 800 pounds--with the trailer empty! Over 30% of the trailer's empty weight was on the tongue. The axles had to be moved forward to balance the trailer

before it could even be loaded. Imagine what could have happened if he had loaded and used it.

Just because it "came that way from the factory" doesn't mean it is always set up right. Also just because the dealer hooked it up and said "no problem" doesn't mean it's safe. For example, my father's motor home tracked crooked down the highway for a year until a mechanic discovered that one of the rear springs had been installed backward at the factory and the rear axle wasn't perpendicular to the frame. It wasn't a major safety hazard, but it proves even the factory can make mistakes. The best way to be sure is to check the tongue weight yourself before each trip, especially on trailers where cargo has been loaded or moved around.

If you're a dealer or shop, give yourself maximum protection against liability by checking every trailer before it leaves your lot. To encourage safe towing and to build store traffic, invite your customers to bring their trailers by your lot to be checked before their next trip, or better yet encourage them to buy a Sherline scale of their own and show them how to use it properly.

### Trailer Disaster Testimonials

If you have stories about trailer loading and handling disasters, send them to Sherline and we will add them to the above list in hopes of saving someone from sharing the unpleasant experience. Here are some true stories sent to us in response to reading this page:

"My uncle and I were on a fishing trip about an hour from home, when one of the wheel bearings on the boat trailer went bad. (Hint number one: Check your bearings and pack them often). We disconnected the boat trailer, returned home and borrowed a family friend's flat bed car trailer and returned for the boat trailer. We winched the boat and trailer onto the other trailer, trying to center the boat axle over the car trailer axles. Because of the tongue length we were only able to get the single axle of the boat trailer over the rear axle of the car trailer. The weight of the huge outboard boat motor was still towards the rear of the trailer arrangement. We strapped down the boat and hit the road. We merged onto the interstate and upon crossing the middle of the first overpass at about 45 mph, the trailer started to sway badly. My uncle was driving and reacted instantly by grabbing the brakes,

which caused the entire rig to jackknife. (Hint number two: Do not react to sway by grabbing the brakes!)

The trailer blew out the right rear tire of the tow vehicle, bent the fender and bumper, and we were sliding backwards down the interstate. I was literally looking at the vehicles that were behind us a second earlier. In a squeal of tires, a cloud of smoke and dust, and blaring horns, we just cleared the guard rail when our rig went off the shoulder and slid down the very steep embankment on the other side of the overpass. Upon reaching the bottom of the embankment, the trailer swung back behind the truck and everything came to a screeching halt. The police were called out, and the officer gave us a warning. We changed the tire on the truck and limped to a parking lot where we reloaded the trailer and evaluated the damages. No one was injured physically. My uncle's pride was badly damaged because he pulls a trailer every day and reacted poorly to the situation.

The list of damages included: 1 All terrain truck tire and rim, 1 right rear fender on a Chevy half ton, 1 rear bumper, 1 car hauler trailer frame bent, 1 large gouge in the hull of an aluminum boat. The cause: Inadequate tongue weight, combined with poor towing skills. I learned a valuable lesson in weight distribution, loading, securing the load, and driving reaction. I also gained a mental scar that I must overcome any time I tow a trailer. I urge everyone to check the weight distribution every time they hook a trailer up, no matter how many times they have towed a trailer before."

SB, New Iberia, LA

"When I was moving my motorcycle business from Austin to Houston, I had a Dodge 3/4 ton van with a custom modified car trailer (with many tie downs) in tow. I had nearly \$60,000 in cycles on the trailer as I left Austin one Sunday night. As I got out of town and started to accelerate to highway speed, the entire rig started a MASSIVE (2-3 ft) side-to-side oscillation. It was so bad I could hear both rear tires making huge CHIRP CHIRP sounds! My wife was with me and we were only doing 45 mph. When I finally got it back down to 32 mph, it all stopped. Luckily a State Trooper saw all this and pulled me over. He explained how the load and balance made this all happen and sent me on with a warning to "go very slow". It was a shame this and the other events had to happen before someone really explained to me how this happens and how to avoid it. We were just lucky not to have been killed. We drove on for 8 more hours to get to Houston (153 miles)! What a savings in time and peace of mind your trailer tongue scale would have made for me if I had known about it then."

Dave Sharp (New owner of a trailer tongue scale)

### A Disaster About to Happen

Now here is a truly bad idea and a perfect example of what is jokingly called "redneck engineering." These photos circulated on the Internet a while back. Hopefully the builder of this trailer hitch either did it as a joke or was only intending to move the 5th wheel trailer around his yard and did not venture out on the highway with it. A rig doesn't have to be this far out of whack to still be dangerous on the road. Proper tongue weight and components of sufficient strength are critical to your safety on the highway.



*The front wheels are barely touching the ground!*



*The 4x4 from the hitch to the bottom of the tailgate is a nice touch...*



*...and we're sure the spindly chains and "S" hooks really help too.*

Keep in mind that 5th wheel trailers typically carry about 25% of their total weight on the gooseneck rather than the 10% to 15% usually recommended for conventional hitches. The vehicle manufacturer probably didn't engineer the rear axle for this kind of weight either.