

**Instructor Notes:** This month's towing Safety Meeting focuses on smaller recreational trailers equipped with ball-type hitches such as some boat trailers, campers, car haulers or small utility trailers. Use this information as a teaching opportunity for newer towing operators as well as a review for more experienced drivers.

# Safety Meeting 2015 #11 – Towing Trailers

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**T**owing a small recreational trailer is not too difficult provided you have the right towing equipment, understand the basic principles of a trailer hitch and understand how your truck will handle differently with the extra weight. When discussing smaller recreational trailers, there are three different types of hitches: ball-type hitches, pintle hitches and goose-neck fifth-wheel hitches. But for our discussion we will be focusing on ball-type hitches because they are most popular and used throughout the country in a wide variety of applications.

## Tow Hitch 101

All hitches are not created equal so it's important to understand the basic trailer towing components. First, a trailer hitch is a semi-permanent device, which attaches directly to a vehicle providing the connection between the vehicle and a trailer. Some vehicles are equipped with a "fixed tongue" hitch which includes a flat non-removable drawbar that holds a single trailer ball, but more common is a "receiver" style hitch that has a square tube receptacle for inserting different hitch mounts or other items such as a carrying rack. Hitch balls usually come in three sizes: 1-7/8-, 2- and 2-5/16-inches. As a rule of thumb, the bigger the ball, the more weight it can support. Generally, the smaller receiver tubes (1-1/4-inch square) are for lightweight trailers or bike racks while larger receiver tubes (2 inches square) are for heavier loads.

## Towing a Trailer with a Wheel-lift

Even though most light-duty tow trucks and car carriers were not primarily designed to tow trailers, many

towing equipment manufacturers provide an optional wheel-lift bolt-on hitch that will do the same thing. When using a wheel-lift hitch, follow the manufacturer's directions carefully and make sure all required pins are in place and/or that attachment bolts are properly tightened. Keep in mind that in some cases, the wheel-lift has to be completely retracted to limit the movement of the add-on hitch plate.

## Attaching to a Trailer

After backing your tow truck to the trailer, try to keep your alignment as straight as possible to avoid tight-turn damage when pulling out. Before attaching, make sure your truck's hitch can handle the gross trailer weight (total trailer weight, including its cargo), tongue weight (amount of weight on your hitch, generally 10-15 percent of the gross trailer weight) and that you are using the correct ball size.

Next, move your wheel-lift in/out or up/down to connect to the trailer. Once the trailer is seated onto the trailer ball, flip down the ball latch and secure it with a pin or bolt. Crank the trailer leg up to avoid damage and attempt to level out the trailer as best as possible. Attaching safety chains is very important as is connecting the trailer lights to avoid a rear-end collision. If the trailer's lights aren't working, or if you don't have an adaptor, you may have to run your own tow lights to the back of the trailer. Before moving the trailer, confirm that the trailer's load is adequately secured not only to prevent falling off but to minimize movement within the cargo area. Lastly, visually check the trailer's wheels. If they appear low, air them up to the appropriate level.

## Spotting a Trailer

Once you make it to your destination, attempt to locate and identify a safe place to spot the trailer – the flatter and more level the better. If you can pull in and drop without backing, that's great. If not, use your mirrors. If your mirrors don't provide an adequate view when backing up, seek assistance when able. After you've backed the trailer in, check the ground where the trailer support leg will sit. If it's too soft or muddy, place a board or something similar under it to distribute the weight across a wider footprint to avoid a "nosedive." Before disconnecting, don't forget to chock the trailer's wheels to avoid movement.

## Towing a Vehicle Hauling a Trailer

When attempting to tow a disabled vehicle already connected to a trailer, less is more. In other words, if you can separate the two and leave the trailer in a secure place or tow it separately, the better off you may be. If you have to keep them together, doublecheck the condition of the trailer, the trailer hitch, safety chains, lighting and its wheels to make sure everything is in place and ready to go. When dropping off the vehicle and trailer, backing them up while connected is very, very difficult, but not impossible, so one option is to disconnect them and spot them independently.

## Towing a Damaged Trailer

In some instances, a trailer may be damaged and un-towable. Examples could include a flat tire without a spare, a broken hitch or a burnt wheel bearing. In these cases, your only option may include serious road service or loading the trailer onto a car carrier or lowboy trailer.