Vehicle Trailer Requirements & Safety Training

County of Henrico Virginia
Virginia Regulatory Requirements

- Trailer means every vehicle without motive power designed for carrying property or passengers wholly on its own structure and for being drawn by a motor vehicle, including manufactured homes. 46.2-100 (Virginia Code).

- All trailers require a registration and a license plate for road use unless exempted by code.
Registration

- Keep on the trailer in weather proof container.
Trailers Exempted from Registration

Specialized mobile equipment which cannot maintain a sustained highway speed in excess of 40 miles per hour, and trailers or semitrailers which are designed and manufactured for a specific purpose and whose movement on the highway is incidental to the purpose for which it was manufactured and which are not designed or used to transport persons or property, shall not be required to be registered under this chapter. 46.2-700 (Virginia Code).
Determine Trailer GVWR and Coupler Size

- Check the trailer data plate for the gross vehicle weight rating (GVWR) and coupler size.
The Towing Vehicle

Ensure that the towing vehicle is capable of safely towing the trailer. The gross combination weight rating (GCWR) is the combined weight of the towing vehicle, trailer, passengers, equipment, fuel, etc.

See the vehicle owner’s manual for information regarding the vehicle GCWR and the towing of trailers.
Hitch Draw Bar Ball Size

- Ball sizes for a coupler can be one of three sizes:
  - 1 & 7/8 inch
  - 2 inch
  - 2 & 5/16 inch

- The towing vehicle must have the same ball size.
Hitch Draw Bar Ball Size - cont
Hitch Draw Bar Ball - cont

- Draw bar must be secured to the vehicle hitch with a cross pin and a safety pin or locking device to keep the pin from vibrating loose from the hitch.
Example of a key and lock to secure the cross pin.
Trailers That Need an Annual State Inspection Sticker

- Trailers that have brakes regardless of gross vehicle weight rating (GVWR).

- Trailers exceeding 3,000 pounds GVWR.
State Inspection Requirements

- If trailer is greater than 3,000 but less than 10,000 GVWR – brakes must be on both wheels of at least one axle.

- If trailer is greater than 10,000 GVWR – brakes must be on both wheels of all axles.

- Must have a functioning emergency breakaway device for electric or hydraulic brakes.
Emergency Breakaway Cable
Emergency Breakaway Cable - cont

- The breakaway cable must be securely attached to the towing vehicle to ensure that the brakes are activated should the trailer separate from the hitch.

- Any excess length in this cable should be wrapped around the trailer electrical cable to keep it from dragging on the ground.

- Under no circumstances will the breakaway cable be threaded through or around the safety chains.
State Inspection Requirements-cont

- Must have safe tires (tread depth of at least 2/32 of an inch measured in two consecutive treads as measured in three equally spaced points on the tire).

- Must have functioning brake lights, turn signals and marker lights.

- Must have reflectors on all corners of the trailer as well as the rear of the trailer.
State Inspection Requirements-cont
If there are axle springs, they must not be broken or damaged, the spring shackles that connect the springs to the frame must be serviceable.

The trailer coupling device to the ball must function properly to secure the trailer to the towing vehicle.

The trailer tongue must not be bent or damaged.
Trailer Coupler

If trailer coupler comes with a locking lever device or a screw type locking device, ensure that the locking lever has a safety pin, or that the screw device has a function spring loaded detent to keep the coupler secured to the ball.
Trailer Coupler - cont
Attaching Trailer to the Vehicle

- If possible have a second person to assist in backing up to the trailer. This avoids damaging the rear bumper of the truck.

- When the hitch ball and coupler are aligned lower the coupler onto the hitch ball.
Hitch Coupler & Draw Bar Ball

Coupler

Ball
Locking Lever

- Ensure the locking lever securely closes around the hitch ball.

- That the locking pin is placed through the locking lever.
Locking Lever - cont

[Image of a locking lever with pointers to the locking lever and locking pin]
Hitch Ball Sizes

- You **MUST** insure that the Hitch Ball size corresponds to the coupler size.

- There are 3 Ball/Coupler sizes:
  - 1 7/8 inch
  - 2 inch
  - 2 5/16 inch
Safety Chains

- Hook the safety chains to the tow vehicle.
Safety Chains - cont

- Cross chains under the tongue
Safety Chains - cont

- Crossing the chains will "CATCH" the trailer tongue and will help to avoid a RUNAWAY TRAILER situation if you have a hitch/coupler failure.

- Ensure that the chains do not drag on the ground.
Electrical Connector

- Connect light plug and ensure lights work.
Vehicle Trailer Requirements & Safety Training

Questions?