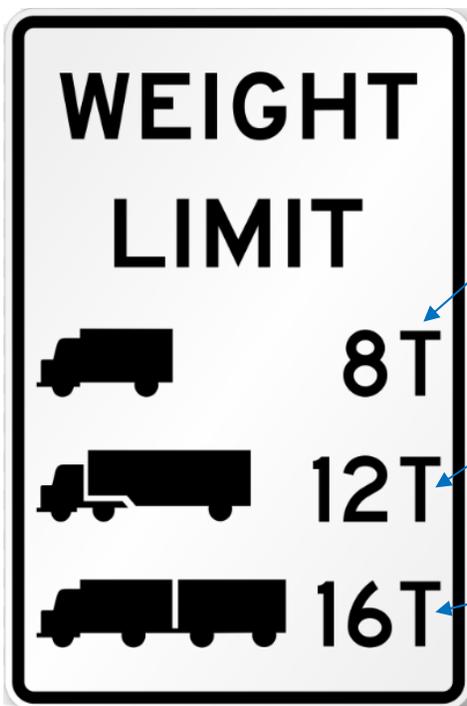


BRIDGE POSTING SIGN GUIDANCE & UNDERSTANDING BRIDGE WEIGHT LIMITS

The purpose of this document is to help the traveling public and road users of Minnehaha County better understand bridge postings and how to interpret what the signs mean.

BACKGROUND

You may have noticed that the signs indicating maximum weight limits crossing our bridges have recently changed. They used to have three truck images with numbers next to those images' silhouettes which indicated the maximum gross vehicle weight (GVW) allowed to cross over those bridges per truck type. The units of the numbers represent tons (T).



- Single Unit Truck (Type 3) is a three axle single-unit vehicle with a maximum legal capacity of 24 tons. This sign indicates that this vehicle can weigh no more than 8 tons max GVW, or 16,000 pounds. Note that the image shows one chassis with no separation between tractor and trailer.
- Standard Semi-truck (Type 3S2) is a five axle semi-tractor and trailer combination with a 40 ton maximum legal weight. This sign indicates that only vehicles weighing less than 12 Tons, or 24,000 pounds, can legally cross the bridge. Note that the image shows a space between the tractor and trailer meaning the two can easily be separated.
- Combination, or Tandem (Type 3-2) is a five axle combination of a single-unit vehicle pulling a trailer with a GVW of 46 tons; however, only tandems with a GVW less than 16 tons, or 32,000 pounds, can legally cross this bridge.

Figure 1 - Old bridge posting signs, **NO LONGER USED.**

Because there are many different configurations of tractors pulling trailers with a variety of axle combinations (not accurately represented within the simple truck images in Figure 1), the enforceability of the sign shown above began to be challenged in court. Judges starting ruling against enforcing over-weight fines due to the confusion as perceived by the traveling public.

In an attempt to minimize confusion and improve the enforceability of over-weight violations, the South Dakota Department of Transportation changed their standard sign to look like what is shown below in Figure 2. Minnehaha County installed these signs in 2015.

The following page provides further explanation in how to interpret the new signs in conjunction with the charts from pages 1 and 2 from our *Quick Reference* document.



“**SINGLE UNIT**” is now defined as any vehicle that has its trailer permanently attached to the tractor (power unit) on one frame, regardless of the number of tires, axles, or axle configuration.

Examples include trucks, camping and recreational vehicles, motor homes, school buses, delivery vans, ambulance, etc. *The key is the truck body cannot be easily separated from the power unit.*

In this example, any single unit vehicle must weigh less than 18 tons, or 36,000 pounds in total to cross (GVW < 18 T)

“**COMBINATIONS**” are now defined as being any vehicle in any combination of tractor (power unit) and trailer(s) whereby the tractor (power unit) can be easily separated from the unit(s) it is pulling – basically, everything that does not a single unit.

Examples include vehicles pulling a boat or trailer, goose-necks, fifth-wheels, dump trucks, any tandem truck, etc.

In this example, any combination unit must weigh less than 28 tons, or 56,000 pounds in total to cross (GVW < 28 T)

Figure 2 - Currently used Bridge Posting Sign example

Note the truck images (silhouettes) no longer exist. Using only words to describe the truck types and numbers in tons will minimize confusion and hopefully be more easily understood by drivers, thus leading to less violations and also increased enforceability within our legal system.

In addition, bridge weight limits may be signed differently as shown at right.

In this example, the **maximum allowed gross vehicle weight** (GVW) for **any** vehicle including cars, trucks, vans, farm equipment, and RV’s is 10 tons, or 20,000 pounds regardless of the number of axles and axle configuration.



R12-1
Sign image from the Manual of Traffic Signs - <http://www.tdfridgign.us/>
The sign image copyright Richard C. Shour. All rights reserved.

It is recognized that some confusion may persist since some “single unit” vehicles are rated over 33,000 GVW (cement trucks, large garbage trucks, fuel trucks, refrigerated vans, large furniture trucks, commercial touring buses vs. school busses vs. transit buses). However, the text contained herein is the direction we have been given by the SDDOT and the terms as defined by FHWA as found on pages 1 and 2 of our *Quick Reference* document are the rules which will be enforced accordingly.

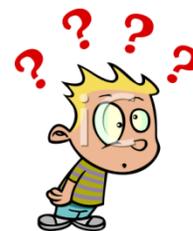
We assume additional guidance from the SDDOT will be forthcoming. In the meantime, when in doubt – be conservative and don’t cross. ***As a driver of any vehicle, it is your responsibility to know the weight rating of your vehicle, what you are hauling, and ensure it is properly loaded and secured.***

This practice will not only save our bridges and protect you from potentially being fined, it may save your life or your neighbor’s life!

For additional information on trucks and hauling on South Dakota highways, the following website contains very good information: <http://www.sdtruckinfo.com/>.

STILL NOT SURE IF YOU SHOULD CROSS...?

If you own a rig and are still unsure whether you should cross a posted bridge or or not, we have prepared the following series of questions and answers that will safely guide you to the appropriate decision.



Can a specific vehicle cross a structure?

1. *What is the maximum allowable gross vehicle weight and the maximum allowable weights for the various axle groups for the specific configuration of the single unit or combination vehicle in question?*

The answer can be found in any of the following three ways:

- a. Legal Weight Calculator on the South Dakota Truck Information website.
 - b. Bridge Weight Formula in Chapter 4 of the Motor Carrier Handbook.
 - c. Bridge Weight Tables in Chapter 4 of the Motor Carrier Handbook.
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2. *Is the actual gross vehicle weight and the actual weights of the various axle groups for the single unit or combination vehicle less than the above calculated maximum legal weights?*
 - a. No – the vehicle is not considered to be a legally loaded vehicle and should be made legal by either shifting the load or unloading part of the load.
 - b. Yes – vehicle considered to be legally loaded; proceed to Step 3.

3. *Is there a load posting sign at the structure?*
 - a. No – the structure is capable to support legally loaded vehicles. Single unit or combination vehicles which are considered to be a legally loaded vehicle may cross over the structure.
 - b. Yes – proceed to Step 4.

4. *Is the actual gross vehicle weight of the single unit or combination vehicle equal to, or less than, the applicable posted weight limit?*
 - a. Yes – vehicle may cross over the structure.
 - b. No – vehicle exceeds the posted weight limit and should not cross the structure.