



# 2010 FORD F-450

Tow Rating

Engine:	6.4L V8 TURBO DIESEL	Transmission:	AUTOMATIC
Drive:	2WD	Tire Size:	N/A
Cab:	CREW	Package:	N/A
Bed:	N/A	Wheel Base:	N/A
Axle Ratio:	4.30	Rear Wheels:	DUAL

## HOW MUCH CAN I TOW WITH A FIFTH-WHEEL?

Boasting about towing a heavy load is common in this day and age. It's the focus of nearly every truck commercial. But the answer to how much you can safely tow isn't always easy to find and there are many variables. Nonetheless, weight ratings are important to understand and follow.

Truck manufacturers give their trucks specific ratings after extensive testing. Tow ratings are based on the capacity of a truck's engine, transmission, and brakes to safely handle the weight of a loaded trailer. Truck manufacturers calculate

how much a truck can safely accelerate and stop before assigning a tow rating. For Gross Weight Ratings, the truck's tires, frame, and suspension must be able to bear the load. It's important to never exceed the ratings assigned by the truck, trailer, or hitch manufacturers for the specific equipment you are using.

Fifth-Wheel hitches should be tested for strength and durability and rated according to SAE J-2638.

## FINDING MANUFACTURER WEIGHT LIMITS

GCWR	33,000	<b>Gross Combined Weight Rating (GCWR)</b> is the maximum allowable weight of the tow vehicle and the loaded trailer including all cargo and passengers.
GVWR	14,500	<b>Gross Vehicle Weight Rating (GVWR)</b> is the maximum allowable weight of the fully loaded vehicle.
Tow Rating	24,600	<b>Max Tow Rating</b> Sometimes called maximum towing capacity, is the maximum allowable weight that a vehicle can tow.
VTWR	6,150	<b>Vertical Towing Weight Rating (VTWR)</b> is the downward force that the tongue of the trailer applies to the hitch of the tow vehicle. Your hitch should be no more than 25% of your truck's Tow Rating.

# FINDING YOUR ACTUAL WEIGHTS

Take your loaded truck and loaded trailer to a scale at a truck stop, quarry, or material supply center. For a small fee you can weigh your tow vehicle and trailer on their scale.



14,500

GVWR

MUST BE MORE THAN

your GVW

## 1. Find your GVW (Gross Vehicle Weight)

Weigh just your truck with a full tank of gas, all your passengers and items in the cab and truck bed with your trailer loaded and attached, but not on the scale.



33,000

GCWR

MUST BE MORE THAN

your GCW

## 2. Find your GCW (Gross Combined Weight)

Weigh your fully loaded truck and trailer including all cargo, a full tank of gas and passengers.



## 3. Find your Towing Weight

Weigh your loaded truck without the trailer attached. This is your truck weight.

Subtract your **Truck Weight** from your **GCW**. This is your towing weight.

$$\boxed{\phantom{00000}} - \boxed{\phantom{00000}} = \boxed{\phantom{00000}}$$

your GCW                      your Truck Weight                      your Towing Weight



24,600

Max Tow Rating

MUST BE  
MORE THAN

your Towing Weight

## 4. Find your VTW (Vertical Tow Weight) also known as Tongue Weight.

Subtract your **Truck Weight** from your **GVW**.

$$\boxed{\phantom{00000}} - \boxed{\phantom{00000}} = \boxed{\phantom{00000}}$$

your GVW                      your Truck Weight                      your VTW



6,150

VTWR

MUST BE  
MORE THAN

your VTW

# IMPORTANT!

Even though you may be under your vehicle's Max Towing Rating, when your Gross Vehicle Weight (GVW) goes up, (more passengers, more cargo) your ability to tow the Max Towing Rating may not be possible, because: **the Gross Combined Weight Rating (GCWR) must not be exceeded.**