

DUMP TRUCK CAPACITY GUIDE

If you're looking to invest in a Kenworth dump truck, then one major factor to consider is the capacity. It is not simply a matter of just picking the dump truck with the largest capacity; you'll also need to consider a range of other options, like how much that will affect your operations.

In this guide, we've gathered the most frequently asked questions about dump truck capacity.

WHAT IS THE CAPACITY OF A DUMP TRUCK?

Dump trucks come in a variety of sizes, weights, and capacities. As a general rule, assume a typical dump truck will hold around 10 to 14 cubic yards of material. However, there are also smaller and larger options available, depending on your needs.

Smaller dump trucks can typically carry:

- 6.7 to 7.5 tons
- 13,000 to 15,000 lbs.

Larger dump trucks can typically carry:

- 14 tons
- 28,000 lbs.

The exact capacity of a dump truck depends on the model. Consult the owner's manual for more specific information on your truck's dump capacity.

HOW MUCH WILL MY DUMP TRUCK WEIGH?

The weight will depend on two factors: the truck size and the type of material being hauled. Each truck is designed with a maximum payload capacity which determines how much weight it can safely carry. Lighter materials, such as mulch or wood chips, have a lower density and weigh significantly less per cubic yard compared to heavier materials like dirt, gravel, or concrete.

To get the job done right, it is important to match the dump truck to the task. For bigger construction projects, you may need a tri-axle or quad-axle dump truck to handle heavy materials in large quantities. For landscaping jobs or jobs that involve lighter materials, a smaller, single-axle or medium-duty dump truck is usually the way to go. Using the right sized truck can save you money, boost work productivity, and make hauling a whole lot easier.

WHAT IS THE DIFFERENCE BETWEEN PAYLOAD AND GVWR?

- **GVWR (Gross Vehicle Weight Rating):** The maximum allowable total weight of the truck plus its load.
- **Payload Capacity:** The maximum weight of the material you can legally carry (GVWR minus the truck's empty curb weight).

HOW MUCH WEIGHT CAN MY DUMP TRUCK CARRY?

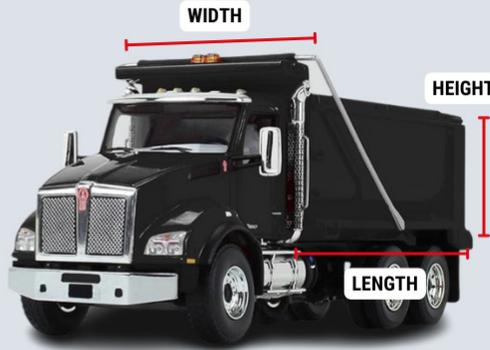
Figuring out your dump truck's capacity doesn't have to be complicated. To calculate the volume it can hold in cubic yards, start by measuring the length, width, and depth of your truck bed in feet. Then, convert those measurements to inches and multiply them together. Once you have that number, divide it by 46,656 (the number of cubic inches in a cubic yard), and you'll know the truck's capacity in cubic yards.

DUMP TRUCK CAPACITY

$$\frac{\text{BODY LENGTH (IN.)} \times \text{BODY WIDTH (IN.)} \times \text{BODY HEIGHT (IN.)}}{46,656}$$

46,656

= TOTAL BODY CAPACITY



Measure: Determine the length, width, and depth of your truck bed in feet.

Convert: Multiply each measurement by 12 to convert to inches.

Calculate: Multiply the length (in inches) by the width (in inches) by the depth (in inches).

Divide: Divide the result by 46,656 to find the truck's capacity in cubic yards.

Another way to figure it out is by checking your truck's Gross Vehicle Weight Rating (GVWR), which you can find on your registration. Subtract the curb weight (the weight of the truck when it's empty) from the GVWR. This will give you the maximum load weight your truck can handle. Knowing these numbers helps you avoid overloading and keeps your operation safe and efficient.

HOW DOES LOADING AFFECT THESE FACTORS?

There is a huge difference between the resting force of a full load of sand or gravel and the much higher impact force that comes from loading materials. If you're planning on hauling something like demolition debris – which consists of a relatively small number of very heavy pieces – you need a dump truck with a heavy-duty, reinforced chassis. The frame and suspension must be strong enough to handle the repeated impacts from loading and unloading without buckling or sustaining damage. Poorly matched equipment can lead to costly repairs or worse, so it's important to consider how loading affects your truck's structural integrity.

WHAT ARE MY STATE'S DUMP TRUCK LEGAL LIMITS?

Every state has its own set of rules when it comes to dump truck sizes, weights, and the use of lift axles to distribute weight. Check your state's specific legal limits for axle weight, gross vehicle weight, and other regulations. Additionally, be mindful of state and local regulations regarding weight limits on roads and bridges. Many jurisdictions have strict guidelines to prevent road damage. Staying informed not only keeps you on the right side of the law but also helps protect your truck as well as the roads you and other truck drivers travel on.