# Defining Vehicle Weights & Capacities

A quick guide to common vehicle weight and capacity terminology



### **Dry Weight**

Dry weight is the total weight of a vehicle without any fluids, passengers, or cargo.



# **Curb Weight**

Curb weight is the total weight of a vehicle including standard equipment and required fluids, such as motor oil, transmission oil, coolant, AC refrigerant, and in some cases, a full tank of gas. Some people refer to curb weight as wet weight.



# Gross Vehicle Weight / Gross Vehicle Weight Rating

Gross vehicle weight (GVW) is curb weight + passengers and cargo. This can fluctuate depending on the number of passengers or amount of cargo weight.

Gross vehicle weight rating (GVWR) is the maximum operating weight defined by the manufacturer and always remains the same.



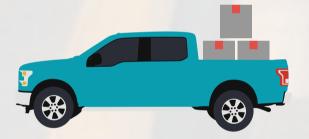
# Gross Vehicle Weight Range / Tonnage

Gross vehicle weight range, also known as vehicle classification or tonnage category, primarily pertains to trucks, as passenger vehicles will mostly sit in the first weight class, with the exception of some larger SUVs which may fall in Class 2. There are eight weight classes across three tonnage categories (light, medium and heavy-duty).



# Gross Combined Weight Rating (GCWR)

Gross combined weight rating (GCWR) refers to the maximum combined weight of a vehicle, its fluids, passengers, and cargo, as well as the weight of the trailer it tows and the trailer's cargo.



#### **Max Payload**

Max payload is the maximum amount of weight that can be added to a vehicle (passengers and cargo), in addition to the curb weight, without towing a trailer. This is often used in referring to the amount of weight in a pickup truck bed, even though

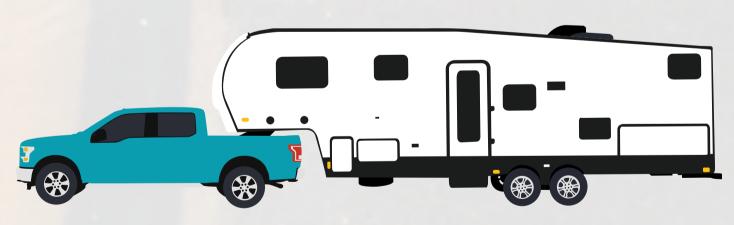
passengers and any other weight added to the truck or SUV is also counted.



### **Base Towing Capacity**

Base towing capacity is the OEM-recommended towing capacity based on standard equipment. For example, a truck with a less powerful V6 engine would have a certain base towing capacity, while that same truck may have a more powerful V6 or V8 engine optionally available which would increase the max towing capacity.

Ex. Ford F-150 3.5-liter Ti-VCT V6 engine (282hp, 253 lb-ft torque) tows up to 7600 lbs



#### **Max Towing Capacity**

The max towing capacity is the maximum weight a vehicle can tow when equipped with the optimal equipment choices. Common equipment that plays a major role in the towing capacity of a vehicle is the engine, transmission and axle ratio selections. This is only applicable for certain vehicles, such as trucks or truck-based SUVs.

Ex. Ford F-150 3.5-liter EcoBoost V6 engine (375hp, 470 lb-ft torque) tows up to 12,200 lbs



#### **GVWR** for Trailers

Gross vehicle weight rating (GVWR), also referred to as gross vehicle weight (GVW),

for trailers is the maximum combined weight of a trailer and its cargo, defined by the manufacturer.

#### **Fuel Tank Capacity**

Fuel tank capacity is an approximate estimate by the manufacturer of how much fuel a vehicle's fuel tank can hold in gallons, or liters outside of the U.S. However, the actual fuel tank capacity can vary by as much as 3% due to "design characteristics, the manufacturing process, and other inherent factors such as the physics associated with components and electronics in the fuel system and fuel level indications," according to the Kansas Department of Agriculture.

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