

# cargo weight

## GUIDE

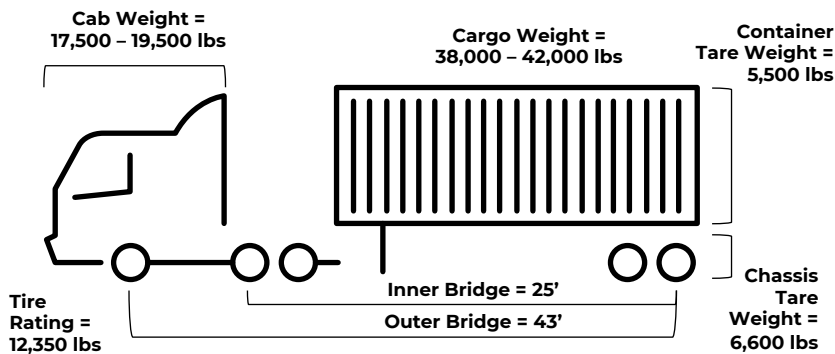
U.S. Federal Law states that single axles are limited to 20,000 pounds and axles spaced more than 40 inches and not more than 96 inches apart are limited to 34,000 pounds (total Gross vehicle weight is limited to 80,000 pounds) 23 USC 127.

### maximum axle weight



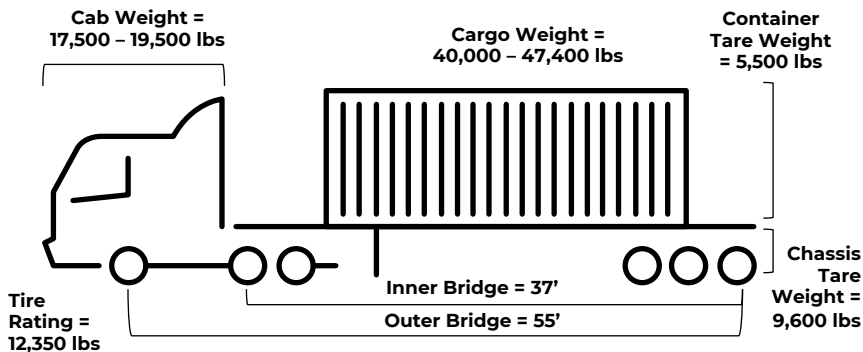
### 20' SLIDER CHASSIS

Inner Bridge = 25'	Number of Axles = 4	Inner Bridge = 59,650 .lbs + 12,350 =	72,000 lbs.	Legal Weight with Permit = 75,600 lbs.
Outer Bridge = 43'	Number of Axles = 5	Outer Bridge = 75,000 .lbs		
Interstate = 38,000 – 40,000 lbs. MAX Cargo Weight		Permit Zone = 42,000 lbs. MAX Cargo Weight		



### 20' TRIAXLE CHASSIS

Inner Bridge = 37'	Number of Axles = 5	Inner Bridge = 71,050 .lbs + 12,350 =	83,400 .lbs	Legal Weight with Permit = 84,000 lbs.
Outer Bridge = 55'	Number of Axles = 6	Outer Bridge = 80,000 .lbs		
Interstate = 44,750 lbs. MAX Cargo Weight		Permit Zone = 47,400 lbs. MAX Cargo Weight		



## DEFINITIONS

### Maximum Legal Gross Weight

Weight of the truck, fuel, chassis, container and cargo.

### Axle Weight

Axle groupings and distance between them determine maximum permissible axle weight.

### Maximum Axle Weight

No single axle may exceed 20,000lbs.  
No tandem axle may exceed 34,000lbs.  
No tri-tandem axle group may exceed 42,000lbs.

### Bridge Formula Requirement

Axle spacing and axle weight are very important for designing and protecting bridge infrastructure.

- Inner Bridge - the distance between the first drive axle to the center of the last trailer axle.
- Outer Bridge – the distance from the center of the steering axle of the truck to the center of the last chassis/trailer axle.

### Tire Rating

The load limit determined by the tire manufacturer. The tire rating is added to the inner bridge limit to help determine gross weight.

### Truck Weight with Fuel

Conventional truck weight for most owner operators is between 17,000 - 19,500lbs.

### Chassis Tare Weight

\*Estimated +/- 5% variance

20' Slider = 6,600lbs  
40' = 6,800lbs  
Triaxle = 9,600lbs  
20'x40' Combo w/ Triaxle = 10,700lbs

### Container Tare Weight

\*Estimated +/- 5% variance

20' = 5,600lbs  
40' = 8,800lbs  
40' HC = 8,900lbs  
Reefer = 10,900lbs



CUSTOMS  
BROKERAGE

INTERNATIONAL  
FREIGHT  
FORWARDING

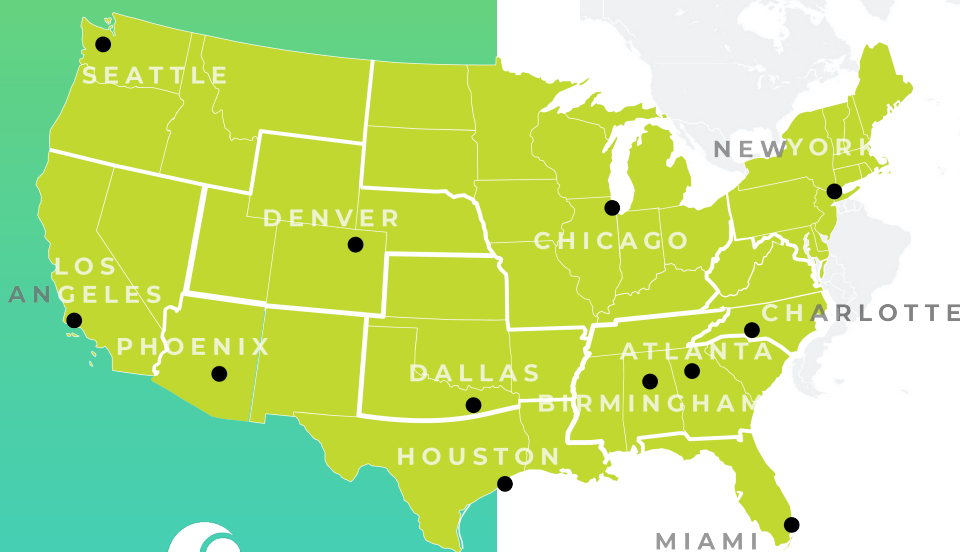
DOMESTIC

WAREHOUSING  
& DISTRIBUTION

ORDER  
MANAGEMENT

GLOBAL TRADE  
SERVICES

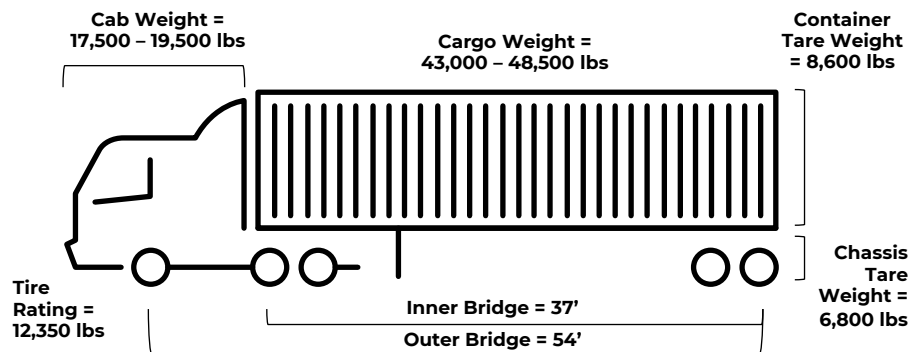
12 nationwide  
offices



  
**greenworldwide®**  
SHIPPING

## 40' STANDARD CHASSIS

Inner Bridge= 37'	Number of Axles = 5	Inner Bridge = 71,050 .lbs + 12,350 =	<b>83,400 .lbs</b>	<b>Legal Weight with Permit = 84,000 lbs.</b>
Outer Bridge= 54'	Number of Axles= 6	Outer Bridge = <b>80,000 .lbs</b>		
<b>Interstate = 45,000 lbs. MAX Cargo Weight</b>		<b>Permit Zone = 48,500 lbs. MAX Cargo Weight</b>		



## bridge formula

Congress enacted the Bridge Formula in 1975 to limit the weight-to-length ratio of a vehicle crossing a bridge. This is accomplished either by spreading weight over additional axles or by increasing the distance between axles. Axle spacing and axle weight are very important for designing and protecting bridge infrastructure.

$$W = 500 \left[ \frac{LN}{N-1} + 12N + 36 \right]$$

**W** = the overall gross weight on any group of two or more consecutive axles to the nearest 500 pounds  
**L** = the distance in feet between the outer axles of any group of two or more consecutive axles  
**N** = the number of axles in the group under consideration

## OVERWEIGHT PERMITS

Heavy Load and/or Overweight Permits are issued and regulated individually at the state-level.

**Not all states allow overweight permits**, some requiring all overweight cargo to be broken down into smaller shipments or require applying on a case-by-case basis.

**For more detailed information, visit the U.S. DOT Federal Highway Administration's Federal Bridge Formula Guide**  
[https://ops.fhwa.dot.gov/freight/publications/brdg\\_frm\\_wgths/fh\\_wahop19028.pdf](https://ops.fhwa.dot.gov/freight/publications/brdg_frm_wgths/fh_wahop19028.pdf)

Disclaimer: The information provided on this website does not, and is not intended to, constitute legal advice; instead, all information, content, and materials available on this site are for general informational purposes only.