



Truck Scales Buying Guide Intro & Terms to Know



Learn why there are so many components to consider when purchasing a truck scale, and understand key terms:

- CLC
- Gross Weight
- Metrology
- And more



Introduction

Truck scales are used all over the world. Businesses large and small, as well as transportation agencies, weigh trucks carrying everything from corn and coal to durable goods and solid waste. The most common use of a truck scale is to determine the weight of bulk goods being bought and sold in truckload-sized quantities. In those cases, information from the scale is a crucial part of the business transaction.

The scale functions much like a cash register. Enforcement agencies use truck scales to check for a truck’s compliance with road-going vehicle weight limits. They are also used to monitor intake and output volumes at facilities, such as solid waste processing and recycling centers, construction sites and more.

Most truck scales are located outdoors. That means they must be able to withstand all environmental challenges while working reliably and accurately. Depending on the environment and application, most truck scale owners expect a scale to last 10-20 years.

Truck scales are important to the daily operations of many of the facilities that use them. They also have a relatively long useful life. That means that selecting a truck scale is an important decision—one that can benefit (or burden) its owner for decades.

Term	Definition
Beam slab foundation	A scale foundation using concrete beams poured into an excavation
CLC	Concentrated Load Capacity; a rating used by NTEP in the United States to define the maximum capacity for a single group of axles
Gross weight	The weight of the loaded truck; meaning the truck and the load combined
Handbook 44	Set of weighing equipment regulations used by NTEP/NIST in the United States

Junction box	One or more boxes, typically located at the scale, which join the cable connections of the load cells with the scale terminal
Legal-for-trade	A term used to describe a scale used for business transactions, which must meet certain performance guidelines
Load cells	The sensory devices used to measure the weight on the scale
Metrology	The scientific study of measurement
Net weight	The weight of the load by itself, minus the weight of the truck. Net weight is often calculated as: gross – tare = net
NIST	See NTEP
NTEP (or NIST)	Weights and Measures authority recognized by the United States and others
OIML	Weights and Measures authority recognized by many European and Asian countries
Pier foundation	A scale foundation that uses variable depth concrete piers under each of the scale's load bearing points
Pit foundation	A scale foundation that is excavated so that the driving surface is flush with the surrounding ground level
Pitless foundation	A scale foundation designed to have one or both sides open
Tare weight	The weight of the unloaded truck

Terminal

The scale interface, or control unit

Treadplate

On steel deck scales, the driving surface is often a steel plate with a diamond-tread pattern to benefit traction

Weighbridge

The structure of the scale that the truck drives onto in order to be weighed. Sometimes used to refer to the entire scale.