
TRUCKMATE®

Orthotropic Steel Deck

Truck Scales



Long Life with Orthotropic Steel Deck Truck Scales

METTLER TOLEDO



Built to Perform Better and Longer with Less Downtime

METTLER TOLEDO steel deck truck scales feature an exceptionally durable orthotropic design that is similar to the design used for the driving surface of the Golden Gate Bridge.

- Exceptional strength and rigidity.
- No welds in high-stress areas.
- Entire module is shot blasted prior to finishing, for protection even in the harshest environments.
- Models available to match size of vehicles and weightments per day.
- Available with DigiTOL® load cells, a patented technology with proven performance. More than 500,000 in service worldwide.
- Modules are tested on our load simulator for millions of cycles to simulate years of use and guarantee durability.

Weighbridge

Our steel deck truck scales are designed to handle a variety of fully loaded trucks. Models are available to match individual customer use patterns (size of vehicle, weightments per day, etc.). And steel decks are ideal for operations that need a scale up and running quickly after installation.

Our orthotropic deck structure easily handles the torsional forces generated by a fully loaded truck. It also distributes concentrated loads better than open-rib deck structures. There are no welds along the bottom sides of the ribs, where they would be more susceptible to fatigue...unlike typical designs, which sandwich beams between top and bottom plates.

Engineering

Each model has been designed to meet its intended application. And since all the steel components are manufactured in-house, there is an infinite array of possible sizes if required by your application.

Each design undergoes three analysis techniques. The first step is theoretical evaluation of the structure through calculations. The design is simultaneously modeled using Finite Element Analysis to simulate stress levels in a real-world application. Additionally, full-size modules are tested in our Tandem Axle Load Simulator, where they are repeatedly loaded to maximum tandem load capacity to simulate years of use.



Built to perform even in Antarctica.

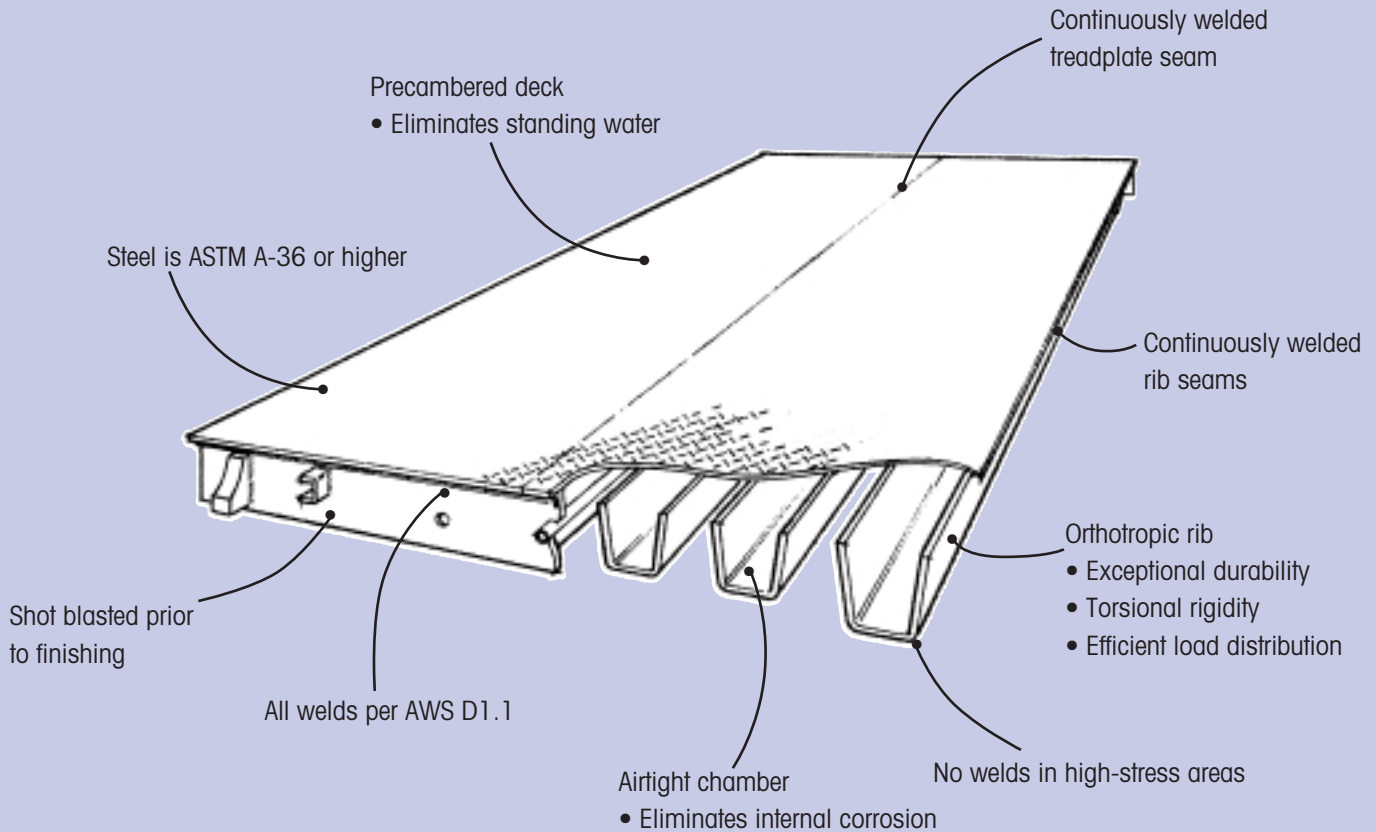


MTX load cells are a second-generation DigiTOL technology.



Tandem axle load simulator empirically validates the design.

Orthotropic Module



Construction

Each orthotropic module is constructed from steel plates that are sheared, then cold formed in a 600-ton brake press to form the trapezoidal rib sections. The ribs are then continuously welded to the deck plate and the end plates, forming airtight chambers.

A torsionally stiff closed rib deck results. The closed chambers formed by the top plate, end plates, and orthotropic ribs are pressure tested and sealed airtight. This virtually eliminates the possibility of rust from within. All exposed surfaces are shot blasted and finished.



Automated submerged arc welder provides continuously welded joints.



Module positioner allows all welds to be placed in the flat position.

Over-The-Road Steel Deck Product Matrix

Model	Profile	Width	Length	CLC	Capacity	Cell Type	Duty Cycle	NTEP CC #
7461	16"	9' 10" or 11'	10' to 160'	60,000 lb	200,000 lb*	30t Analog	Commercial	01-070
7461	18.25"	9' 10" or 11'	10' to 160'	60,000 lb	200,000 lb*	22.5t POWERCELL	Commercial	01-070
7562	14.5"	9' 10", 10', 11', or 11' 10"	10' to 160'	80,000 lb	200,000 lb**	45t MTX	Cycle	93-108A3

*Scales ≤ 20' will have a capacity of 70,000 lb; scales > 20' but < 60' will have a capacity of 120,000 lb.

**Scales ≤ 23' 4" will have a capacity of 120,000 lb.

Off-Road Steel Deck Product Matrix

Model	Profile	Width	Length	CLC	Capacity	Cell Type	Duty Cycle	NTEP CC #
7563	16.5"	9' 9.5", 9' 11", 10', or 11'	10' to 20'	100,000 lb	120,000 lb	45t MTX	Extreme	96-092A3
7563	16.5"	9' 9.5", 9' 11", 10', or 11'	30' to 160'	100,000 lb	200,000 lb	45t MTX	Extreme	96-092A3
7566	29.6"	11' 10"	10' to 20'	130,000 lb	190,000 lb	45t MTX	Extreme	00-077A2
7566	29.6"	11' 10"	30' to 120'	130,000 lb	300,000 lb	45t MTX	Extreme	00-077A2
7563	16.5"	14'*	30' to 90'	160,000 lb	400,000 lb	45t MTX	Extreme	96-092A3
7566	29.6"	19' 9"**	30' to 90'	250,000 lb	500,000 lb	45t MTX	Extreme	00-077A2

*Width can be increased by increasing gap between the scales. Nominal gap is 1". Scale has been designed to weigh either a Cat 773 or Euclid R50 haul truck.

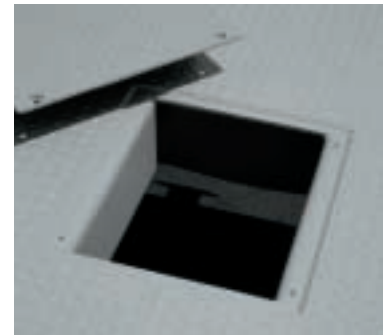
**Width can be increased by increasing gap between the scales. Nominal gap is 1". Scale has been designed to weigh either a Cat 777 or Euclid R90 haul truck.

Steel Deck Product Options

- Multi-axle configurations
- Full-frame portable scales
- Temporary scales
- Side rails
- Manholes for pit installations
- Lightning protection systems
- Scoreboards
- Vehicle scale software
- Extended warranties



Side rails...to help guide vehicles on the platform.



Manholes...for scales installed in a pit.

For questions about orthotropic steel deck truck scales and technical matters, call your authorized METTLER TOLEDO distributor or visit our website: www.mt.com.



High-visibility scoreboards.



Produced in a facility that is



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