

Over-The-Road Steel Deck Product Matrix

Model	Profile	Width	Length	CLC	Capacity	Cell Type	Duty Cycle	Finish	NTEP COC #
7561	14.5"	9'9.5", 9'11", 10', or 11'	30' to 160'	60,000 lb	200,000 lb*	22.5t POWERCELL	Commercial	Standard	Pending
7562	14.5"	9'9.5", 9'11", 10', or 11'	30' to 160'	80,000 lb	200,000 lb*	45t MTX	Cycle	Premium	93-108

\*Scales ≤20' will have a capacity of 120,000 lb

Off-Road Steel Deck Product Matrix

Model	Profile	Width	Length	CLC	Capacity	Cell Type	Duty Cycle	Finish	NTEP COC #
7563	16.5"	9'9.5", 9'11", 10', or 11'	10' to 20'	80,000 lb	120,000 lb	45t MTX	Extreme	Premium	96-092
7563	16.5"	9'9.5", 9'11", 10', or 11'	30' to 160'	80,000 lb	200,000 lb	45t MTX	Extreme	Premium	96-092
7566	29.6"	11'10"	10' to 20'	130,000 lb	190,000 lb	45t MTX	Extreme	Premium	Pending
7566	29.6"	11'10"	30' to 120'	130,000 lb	300,000 lb	45t MTX	Extreme	Premium	Pending
7563	16.5"	14'*	30' to 90'	160,000 lb	400,000 lb	45t MTX	Extreme	Premium	96-092
7566	29.6"	19'9***	30' to 90'	250,000 lb	500,000 lb	45t MTX	Extreme	Premium	Pending

\*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.

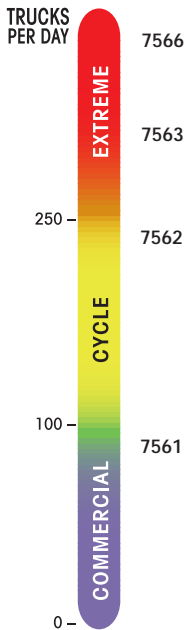
Weighbridge



TRUCKMATE®

Orthotropic Steel Deck

Truck Scale Overview



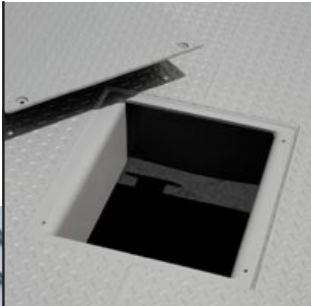
Steel Deck Product Options

Orthotropic steel deck scales are available as axle, full length, or full-frame portable scales. Also available are service manholes for full pit access and side rails for full pit access and side rails to help guide trucks. Existing pits can easily be accommodated by using the 9'-9.5' or 9'-11' widths. Custom lengths are also available.

For questions on orthotropic steel deck truck scales and technical matters, call your authorized METTLER TOLEDO distributor. Or visit our website: [www.mt.com](http://www.mt.com).



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



Manholes...for scales installed in a pit

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India	(91-22) 857-0808	(91-22) 857-5071	Switzerland	(41-1) 944 45 45	(41-1) 944 45 10
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Japan	(81-6) 949-5901	(81-6) 949-5944	Thailand	(66-2) 719 6480	(66-2) 719 6479
Kazakhstan	(7-3272) 50 63 69	(7-3272) 60 88 35	United Kingdom	(44-116) 235 7070	(44-116) 236 6399
					*Ask for FAX.

Internet

[www.mt.com](http://www.mt.com)

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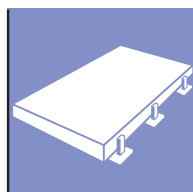
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TRUCK SCALES  
199-TR03185.0E

Long Life with Orthotropic  
Steel Deck Truck Scales

METTLER TOLEDO

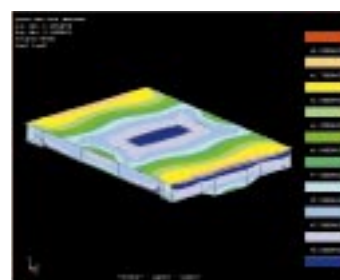
# Built to Perform Better for Longer with Less Downtime



The high performance characteristics of METTLER TOLEDO's family of over-the-road, off-road and portable steel deck truck scales feature an orthotropic deck design. (The Golden Gate Bridge uses similar orthotropic rib panels.)

## Weighbridge

These steel deck truck scales are designed to handle a variety of fully loaded trucks. The orthotropic structure provides high torsional rigidity and is constructed with advanced manufacturing techniques. Models are available to match individual customer use patterns (cycles per day, size of vehicles, etc.). They're also ideal for those who need a scale up and running quickly.



Finite element analysis simulates real-world applications

## High Torsional Rigidity

The orthotropic design provides better distribution of concentrated loads than open rib deck structures. An orthotropic deck easily handles torsional forces generated by a fully loaded truck that moves laterally and stops off center, typical of a truck that moves onto a scale.

It provides high torsional rigidity with much greater horizontal shear transfer than typical truck scales. There are no welds along the bottom side of the ribs where they would be more susceptible to fatigue...unlike typical designs which sandwich beams between top and bottom plates.

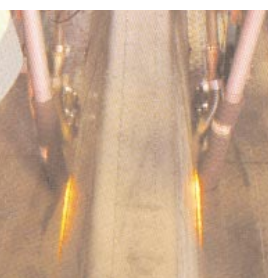


Tandem axle load simulator empirically validates the design

## Engineering

Each model has been designed to meet its intended application. Since all the steel components are manufactured in-house, there is an infinite array of possible sizes to ensure that we have produced the most efficient structure.

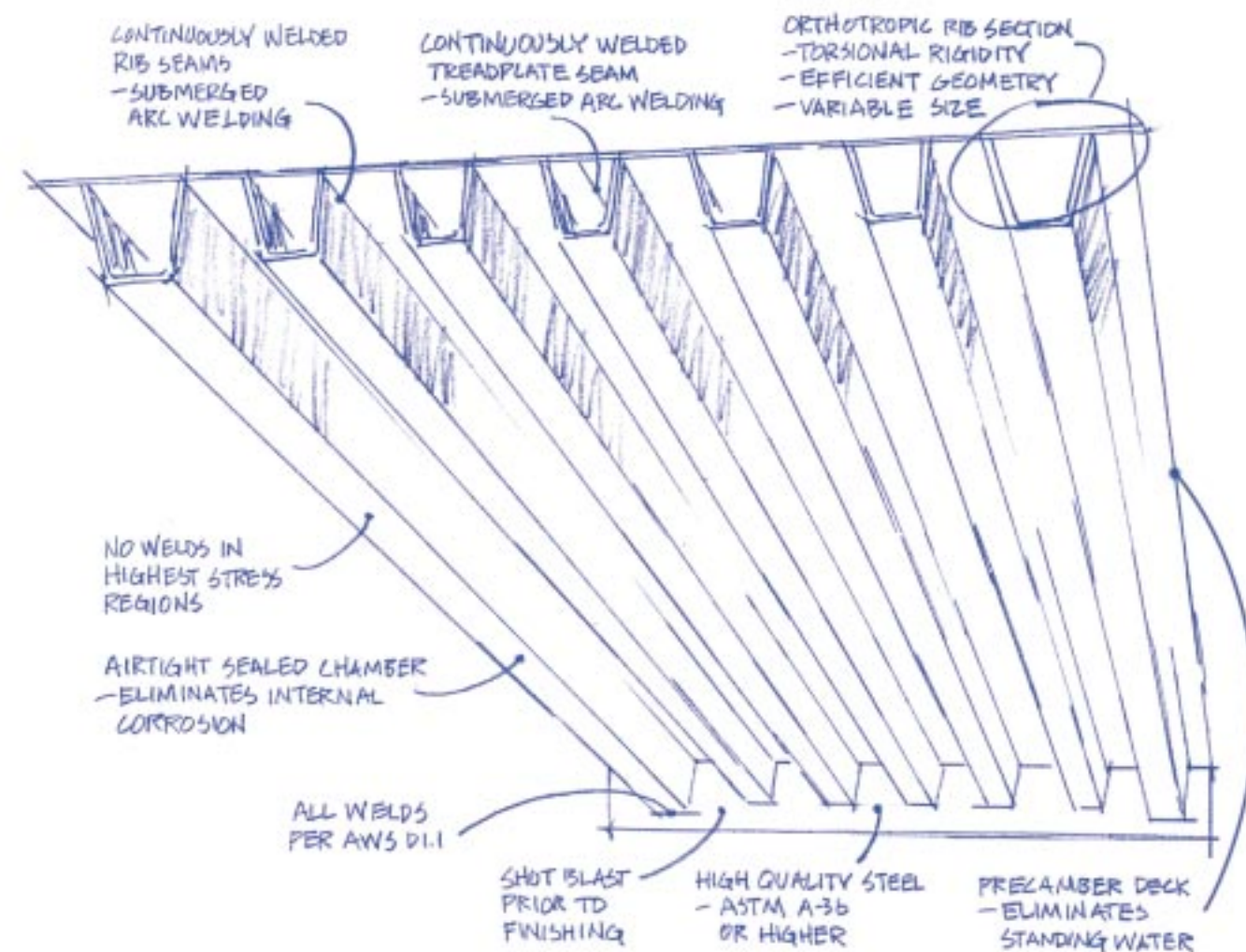
Each design undergoes three analysis techniques. The first step is theoretical evaluation of the structure through calculations. The design is simultaneously modeled using Finite Element Analysis to simulate stress levels in a real world application. Additionally, full size modules are tested in our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



Automated submerged arc welder provides continuously welded joints



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



## Construction

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

## Approvals

TRUCKMATE scales meet or exceed requirements in accordance with the National Institute of Standards

and Technology (NIST) Handbook 44. The Certificate of Conformance (CoC) is identified in the product matrix. These scales have also received Factory Mutual System approval for use in hazardous areas when used with other approved METTLER TOLEDO hazardous area devices.

## ISO 9001

These products were developed, produced and tested in a METTLER TOLEDO facility that has been audited and registered according to international (ISO 9001) quality standards.

