



RAILCAR  
WEIGHING

# SP SERIES Static Railcar Weighing Systems

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## DESCRIPTION

The SP Series Static Railcar Weighing System provides the most cost effective answer to your certified weighing requirements. The SP Series is a complete equipment package which includes a pair of NP Series weighbridge assemblies along with a load cell summing box & cables, digital indicator and data software. Most SP Series Systems are provided with a complete set of standard options which includes anchor bolts & rail attachment components. When the delivery truck arrives, you can be assured that it contains all of the equipment required to complete your installation.

The NP Series weighbridge platforms are available in three standard lengths including 12'-6", 20'-0" & 26'-0". Two of these platforms can be used in any combination to accommodate the range of railcar lengths that your application requires. The extremely low, 15" profile of the NP Series weighbridges easily adapts to an above grade installation. This design minimizes foundation costs as well as eliminating drainage and confined space concerns.

The flexible and easy to use Model 531 digital weight indicator included with the SP Series is supplied with either a printer or SAI's WeighMaster PC software. Loaded on your PC computer, WeighMaster will provide the operator with a user friendly interface for weighing railcars, entering and storing data and providing both local and LAN data transfers.

The SP Series package includes a complete set of design and installation documents which can be tailored to the exact requirements of your application. With the selection of SAI as the supplier of your weighing system, you won't be required to adapt standard or typical information to a site with special installation details.



## FEATURES

- **Complete Equipment Package** is part of the standard supply. There won't be any unexpected costs for components that were not included.
- **Compliance with AAR/AREMA Specifications** for the design and installation of railway track scales. The design is accepted by all major North American railroads.
- **First NTEP Approved** railcar weighing system. NTEP CC #88-084 was issued in 1988 and updated in 2001 (current CC #88-084A1). All equipment complies with NIST Handbook 44 requirements for Class IIIIL devices
- **Above Grade Design** accommodates a simple and economical slab foundation construction. Sump pump requirements are eliminated and confined space concerns are minimized. Open sides provide free flow ventilation beneath the weighbridge which reduces long term corrosion.
- **Minimal Component Quantity** allows easy and quick equipment installation. Shop assembled weighbridge modules are ready to be set in place on the foundation.
- **Safety Steel Decking** provides a safe work area around the scale. Deck plates are easily removable for underside maintenance and cleanout.
- **Hermetically Sealed Stainless Steel Load Cells** with integral cables eliminates moisture intrusion resulting in trouble free operation and consistently accurate weights.
- **Surge Protection Devices** including the digital indicator, summing box and load cell isolation kits provides added protection from electrical surges.
- **WeighMaster PC Software** provides the ability to turn your scalehouse into a data collection and processing center.

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## WEIGHBRIDGE COMBINATIONS

Model Number	SP1212	SP1220	SP1226	SP2020	SP2026	SP2626
Weighrail Lengths	12'-6" / 12'-6"	12'-6" / 20'-0"	12'-6" / 26'-0"	20'-0" / 20'-0"	20'-0" / 26'-0"	26'-0" / 26'-0"
Practical Car Length Range	9'-0"	16'-6"	22'-6"	24'-0"	30'-0"	36'-0"
Typical Shipping Weight (lb)	24,000	28,500	31,500	32,900	36,000	39,500

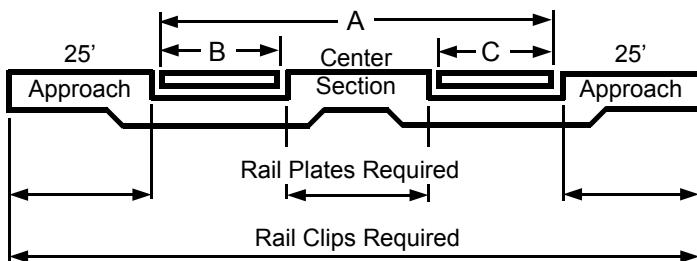
### SPECIFICATIONS

**Design:** Cooper E-80 live load  
**Section Cap:** 85 tons\*  
**System Cap:** 170 tons\*  
**Material:** ASTM A-36 steel w/ A-325 hardware  
**Surface Finish:** Industrial grade gray enamel  
**Load Cells:** 100,000 lb. compression/hermetically sealed  
 NTEP CC #91-001A3  
**Summing Box:** NEMA enclosure w/ surge protection

\* Rated capacities are based on AAR specifications

### WEIGHBRIDGE SELECTION GUIDE

*All data refers to center of truck to center of truck  
 (truck wheelbase = 5'-10" with a +/-1'-0" spotting allowance)*



SYSTEM LENGTH = A = Maximum Car Length + 7'-10"

CENTER SECTION LENGTH = Minimum Car Length - 7'-10"

EXAMPLE:

Maximum Car Length = 55'-0", Minimum Car Length = 36'-0"

A = 55'-0" + 7'-10" = 62'-10"

Center Section Length = 36'-0" - 7'-10" = 28'-2"

Minimum Weighbridge Length (B + C) = A - Center Section = 34'-8"

Use Model SP1226 = 12'-6" + 26'-0" = 38'-6"

Use one NP1260 and one NP2600 mounted 28'-2" apart (dead section)

The amount of rail plates required would be (always round up): 25' + 29' + 25' = 79'

The amount of rail clips required (always round up): 25' + 13' + 29' + 26' + 25' = 118'

### INCLUDED EQUIPMENT

**2 - Complete Weighbridge Assemblies**  
 Factory assembled weighbridge modules  
 100K load cells & bearing kits  
 Load cell isolation kits  
 Base plates & anchor bolts  
 Steel approach rail support beams  
 Safety steel deck plates  
 Load cell summing box  
 Shielded load cell cable

### Model 531 Digital Indicator

NTEP CC #04-086  
 Seven active digit display  
 Pushbutton zero  
 Auto zero tracking  
 Serial output to printer or PC

**Model SAI 190 Printer, or;  
 WeighMaster Software**

### STANDARD OPTIONS

Approach/center section rail plates  
 Rail plate anchor bolts  
 Type 62 rail clips  
 Anti-creep rail anchors  
 Indicator Options  
 Setpoints for fill control  
 Analog output for PLC  
 NEMA wall mount enclosure

### SITE SPECIFIC OPTIONS

Shallow pit deck covers  
 Flush deck panels for vehicle access  
 Galvanized surface finish  
 Rails (115# RE min.) w/ mitered ends  
 Custom foundation designs  
 Complete turnkey installations

Specifications subject to change without notice  
 RW-0208  
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