



**AX SERIES**

**AX1200 for Depots**



# Trainweigh - Rail Weighing Specialists

Weighbridge Services Ltd is a family run business based in Sheffield, UK. With over 40 years experience of designing, building and installing both road and rail weighing equipment, our team of engineers cover almost every aspect of the weighing industry.

Our Trainweigh brand of products, offered solely by Weighbridge Services Ltd, offer a vast range of rail weighing solutions. Over the past 10 years our product range has benefited profoundly from increased R & D budgets, a stronger supply chain and the increased expertise of our workforce by bringing in experienced engineers from other parts of the rail weighing industry.

The Trainweigh range is designed for application into any rail infrastructure from factory installed weighers and testing systems to out-in-the-field weighing and data collection services.

We are now positioned as one of the leading train weighing specialists and can supply a vast range of products worldwide, both off-the-shelf and bespoke manufactured.

We look forward to hopefully working with yourselves.

Regards,

The Trainweigh Department

## OUR AFFILIATIONS





**AX SERIES**

**AX1200 SERIES**  
**MULTI AXLE MEASUREMENT**

## **WHEEL FORCE MEASURING SYSTEM**

Is used for determining the forces of the rail car wheels and translating them in to a digital signal for detailed data analysis. This process should always be used for performing various world standard guidance tests which are related to the manufacturing or maintenance of rail vehicles.

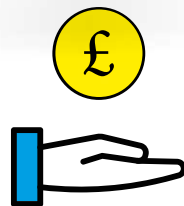
Although depot test tracks are supposed to be level and calibrated, it is often not the case and that errors do exist. It is essential that a rail car is tested with a rail track adheres to the relevant test guidelines. Please note, on examination we have found an incredible 92% of rail tracks do not meet the test criteria as stipulated in the EN15654 example

Rather than the expensive cost of levelling the rail track, the AX-Series can eliminate this problem as the design of the AX-Series scale gives the flexibility to height adjust the scales which can be used to eliminate any track level errors. (Up to 7mm) this process gives a perfectly level datum for the wheel force measuring to take place. This also ensures that the wheel force measuring test has been completed in-line with the level criteria as set out in the world standard guidances applicable.

The AX-Series scale will give a rail car measuring all individual wheels simultaneously an accuracy of 0.5-1% for an individual bogie and 0.2% on a full wagon.

Some of the test which the AX-Series conforms to:-

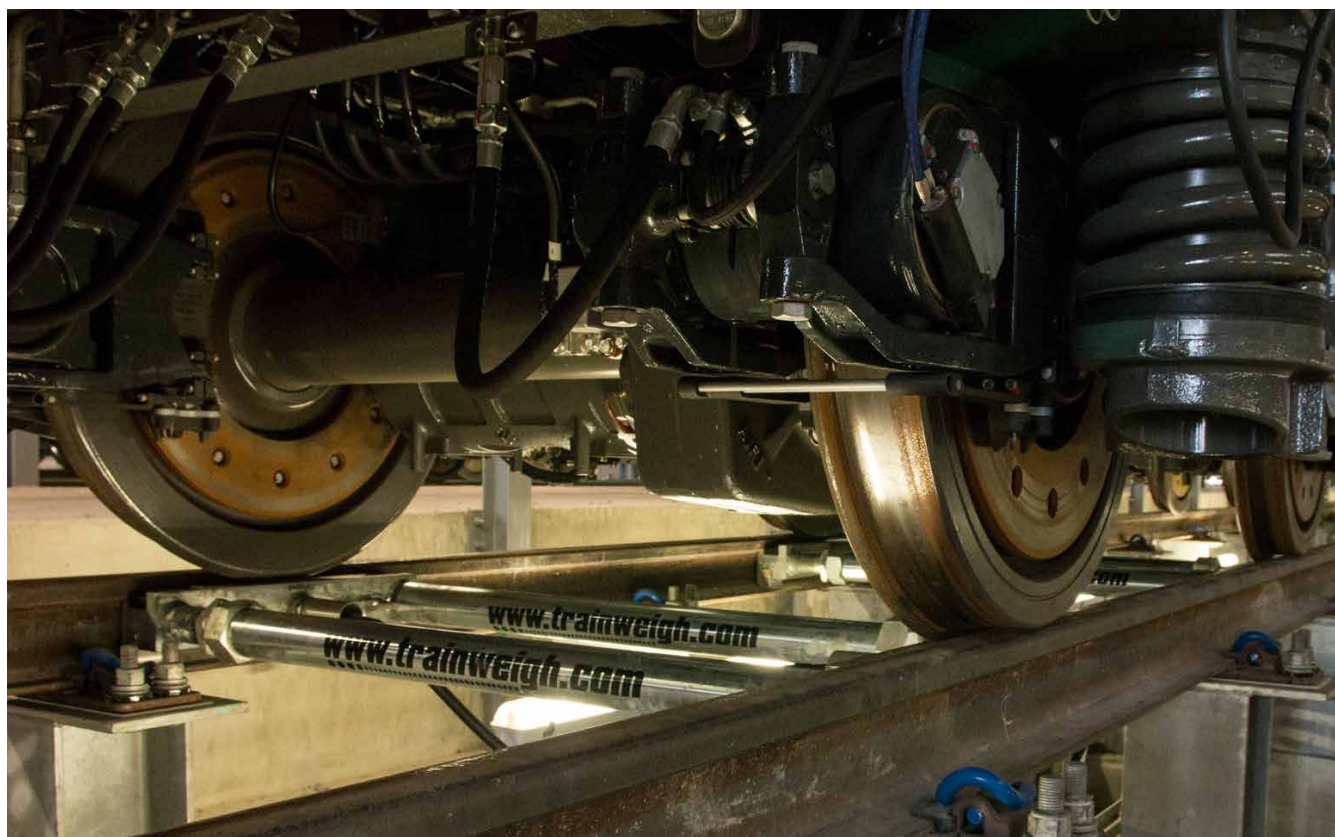
**DIN EN 15654**  
**DIN 27201**  
**EN 14363**  
**DIN EN 50215**  
**UIC V660**



# WHY WEIGH A TRAIN?

Weighing up the benefits

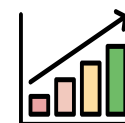
Regular weighing can provide vital, readily available information on various components making maintenance and testing more cost effective for any type of rail depot.



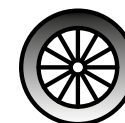
**IMPROVE COMPONENT LIFESPAN**



**CONFORM TO REQUIRED DIN/EN STANDARDS**



**INCREASE EFFICIENCY**



**REDUCE WHEEL WEAR**



**REDUCE MAINTENANCE INTERVALS**

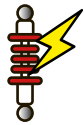
Regular weighing reduces the risk of safety issues by immediately highlighting areas of concern when using the AX Series' fail-safe software system.

Our built-in safety systems notify the operator the instant that any discrepancies, based on your pre-set requirements, are logged.

Multiple plug-ins can be activated to provide a various amount of warning systems to cover many safety concerns faced by rail companies.



# WHAT ARE THE SAFETY BENEFITS?



**IDENTIFY BROKEN SUSPENSION**



**REDUCE RISK OF DERAILMENT**

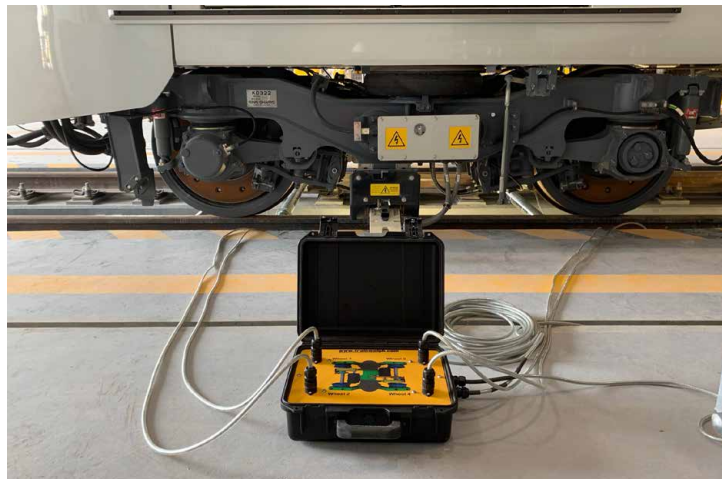


**REDUCE BRAKE WEAR**



**INSTANT ALERTS WHEN ISSUES ARE FOUND IN ANY SPECIFIED AREAS**





## AX1200 WIRED SYSTEM

6 x AX Series bases (12 wheel weighing)

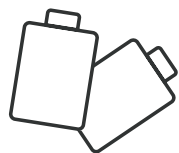
1 x Portable, battery operated weight terminal with integrated thermal printer, ethernet port and USB data port.

3 x Portable junction box connection units

12 x 7m armoured cable

2 x 15m armoured cable

1 x 7m Weight Terminal Armoured cable



The unit has built in rechargeable batteries for up to 10 hours use between charges.



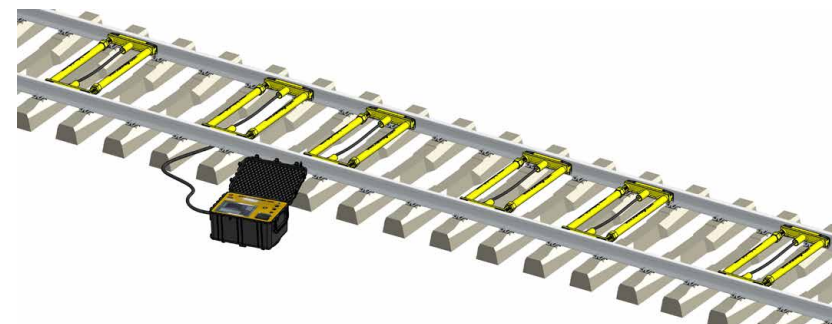
IP controlled Ethernet connection built into the terminal



Thermal tally roll printer built into the terminal



IP67 Protected Enclosure





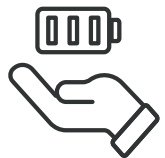
## AX1200 WIRELESS SYSTEM



- 6 x AX Series bases (12 wheel weighing)
- 12 x Wireless transceivers (one on each body)
- 24 x 'AA' Batteries
- 1 x USB connected wireless receiver for the PC
- 1 x Laptop or PC with connected software package



Up to 300m wireless range with 16 selectable wireless channels to avoid radio interference



Uses 2 'AA' Batteries in each module and can be easily replaced when required



IP67 Protected Enclosure



Smart battery technology is built in as standard. This includes an auto sleep mode, placing the scale in an exceptionally low power consumption mode, allowing the best performance from your system.



# AX SERIES SOFTWARE PACKAGE

The screenshot displays the Trainweigh software interface, which is used for rail weighing. It is divided into several functional areas:

- Sign In:** A login screen with fields for 'User Name' and 'Password', and a 'Sign In' button.
- Train Weighing:** The main interface showing a train diagram with 12 wagons. The total weight is 20008 Kg. Individual wagon weights are shown as 10004 Kg and 4000 Kg. Percentage error indicators are set to 60.02% and 39.98%.
- Load Information:** A detailed table of train data, including Ticket Number, Date, Train Destination, and various codes. A 'Basic Details' sidebar provides additional information like Train No, Direction, and Supplier Code.
- Navigation and Control:** A top navigation bar with icons for Reference, Operational, and Administration. A central control panel includes buttons for 'Activate', 'Sleep All', 'Start Train', 'Weigh Wagon', 'Finish Train', and 'Zero'.

A customisable Rail car software to give flexibility to operators with an easy to use platform. The customisable software helps operators perform the various worldwide standards applicable to the manufacturing or maintenance of rail vehicles.

All active wheel weights from the AX1200 are individually displayed. Customisable values are used to show percentage of error tolerances as set out in the vehicle safety guidelines.

- Uses in accordance with DIN EN 15654, DIN 27201, EN 14363, DIN EN 50215, UIC V660
- Support for train maintenance depots
- Support for train manufacturing factories
- Remote compatibility
- Easy to use
- Reliable
- Flexible and customisable drag and drop platform

# TTSS - TRACK TWIST SIMULATION SYSTEM UPGRADE



Some DIN legislations require alternative testing methods to be achieved. To accommodate this our Track Twist Simulation System (TTSS) provides a portable station for operators to run tests in a multitude of scenarios to aid in conforming to the standards required.

All of the individual wheel weighing units of the AX1200 can include a TTSS upgrade that allows for the introduction of shimming plate for wheel level manipulation. The 100mm high locking adaptor allows for up to 75mm lifting of each individual wheel, simulating track twisting, in a safe environment.

The upgrade includes all shimming plates and safety stops, as standard.

# AX SERIES TECHNICAL INFORMATION

AX Series Version	High capacity Specification
AX Series Body Lengths	500mm or 600mm
Live and usable weighing area	374mm
Material	Tool Grade
AX Series protection	<b>Zinc plated</b> <i>Please note that zinc plating is not a cosmetic finish and is used for rust protection</i>
Rail Gauge	1 set of spacer poles provided
Rail Adaptors	1 set of rail adaptors provided
Number of wheel weighing units	12
Available Configurations	2/4/6/8/12 wheels
Working Temperature Range	-40 to +80 °C
Protection Classification	IP67
Power	<b>Wireless: 2 x AA batteries configured for up to 1 year battery lifespan</b> <b>Wired: Rechargeable 24v batteries built into the system.</b>
Wireless Range	300 metres
Track Twist Upgradeable	Yes. 1mm to 75mm of height adjustment
Capacity per wheel	15,000kg
Safe Overload Protection	30,000kg
Increments	10kg
Accuracy	0.5-1% for an individual bogie and 0.2% on a four axle wagon.
AX Series Calibration	ISO9002:2015



# PROUD TO HAVE WORKED WITH:



HEIDELBERGCEMENT



aselsan



Freightliner

STADLER



SIEMENS



BANE NOR



KERETA API  
PT.KERETA API INDONESIA ( PERSERO )





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