



Accurately Weighing Africa



HEAVY DUTY AXLE WEIGHING WEIGHBRIDGE

(WB-AW)

Trade Weighing and Axle Weighing on a
Standard Weighbridge

SASCO WEIGHING SYSTEMS

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AXLE WEIGHING SINGLE DECK WEIGHBRIDGES are an important product within Sasco's range of Truck Weighing solutions. Other products within Sasco's truck weighing range which offer a similar solution, include multi deck weighbridges, weigh-in-motion wimbridges, standard single deck weighbridges with upgraded instrumentation to enable axle weighing, group axle weighers and weigh pads.

Under conditions of high volume industrial weighing where both trade weighing and axle weighing is required, the WB-AW is the optimal solution for delivering highly accurate digital total weight trade weighing as well as compliant axle weighing.

The WB-AW, when installed with Sasco ProWeigh+ software, provides for fully compliant axle weighing as well as an array of operational functionality including weighbridge automation, the total integration of weighing data generated with user IT systems and powerful cloud and networking data capabilities.



Product Overview

The WB-AW is a highly accurate trade approved Truck Weighing System providing total weight and axle weights. Unlike standard multi decks, the WB-AW is bi-directional, can be specified to accommodate horse and trailer combinations up to 36m in length, and can also accommodate non-standard PBS truck configurations that could not ordinarily be aligned with a standard multi deck design.

Sasco typically achieves accuracy levels on total weight 99.95% and 97.5% on axle weights on the system, with a maximum total loading of up to 80 tons. Key elements of the system are:

- It is both cheaper to buy and cheaper to maintain than a multi deck weighbridge, yet achieves similar results.
- It is a Bi-Directional multi deck in that both total trade weights and axle weights can be determined by approaching the weighbridge from either direction.
- Complete digital instrumentation with all components being manufactured in Europe.
- The key instrumentation components are one DD1010 indicator and ten CPD digital load cells.
- A lower cost of option of a trade approved hybrid digital system comprising one DD1010 indicator and ten S500 load cells is also available.
- The most common specification length for the weighbridge is 24m, but is also trade approved up to a length of 36m.
- Decks are manufactured from only high grade steel being grade EN10025/Q235D and can accommodate axle loadings of up to 18 tons.
- Mounting options are either pit mounted or mounted above the ground.
- Sasco ProWeigh + software is supplied as standard, which means the adding on of an array of weighbridge automation is easy.
- Sasco ProWeigh+ also has the functionality to facilitate the integration of weighing data to a range of ERP systems whether directly or via the Cloud.
- The set-up menu of Sasco Proweigh+ Fleet Manager Database, allows for the option of single tare weighing as opposed to double weighing of vehicles.
- The set-up menu of Sasco Proweigh+ Fleet also allows for the option of SOLAS Weighing as well as total weight and axle weighing.
- Finally, there is the added option of fully unmanned operations whether on a stand-alone basis or as part of a Centralized Weighing Operations Control Centre configuration.

Indicator

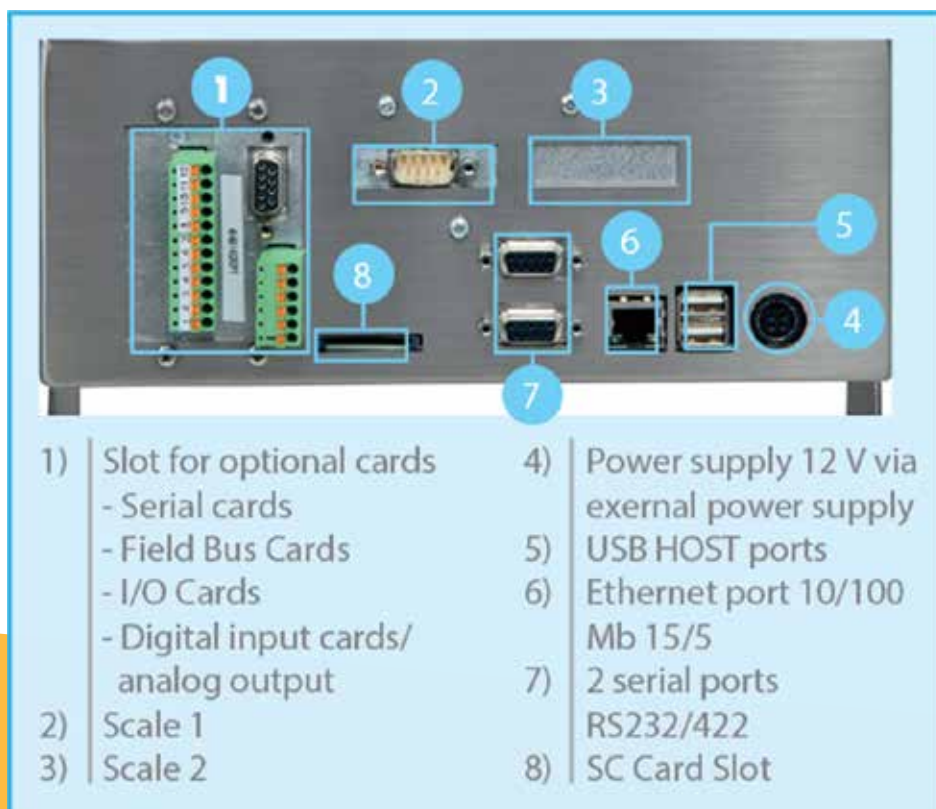
The indicator used on the WB-AW is the DD1010, which is manufactured by Bilanciai in Italy. The reasons for deciding to specify the WB-AW with this indicator are as follows:

- Judged on reliability and functionality, Bilanciai is regarded as the leading manufacturer of weighing indicators globally.
- The DD1010 has the unique functionality to compute, from the total weight, the axle loadings of the vehicle on the weighbridge.



- The DD1010 stores all the load cell calibrations, such that when load cells require replacing, the correct calibrations can be simply be down loaded from the indicator to the relevant load cell. This reduces down time.

- The DD1010 offers an array of interfacing terminal options, can form part of a total facilities network and can also, on a standalone basis, directly manage and control multiple hardware devices used in weighbridge automation.



Load Cells

The WB-AW comes with the option of either CPD or S500 load cells. The S500 load cells are cheaper.

The accuracy of both the CPD and S500 load cells are both very high and both have stainless steel casing. However, the advantages of the more expensive CPD load cell over the S500 are:

- While both the CPD load cell and S500 IP68 rated, the CPD load cell has proven to be able to sustain being submerged for up to a month without compromising its operations.
- The continuing accuracy under conditions of extreme temperature changes, of CPD load cells, have been proven to be better particularly in environments of extreme heat.
- The CPD load cells come with inbuilt lightning protection in each load cell. This has proven invaluable when installations are in high lightning strike areas.



CPD LOAD CELL



Software and Data Integration

The WB-AW runs on Sasco ProWeigh + software and offers the functionality of seamless data integration, either directly or via the Sasco Cloud.

Configured in single weighing tare mode weighing the weighing sequence to be followed by the Weighbridge Operator is as follows:

Capture Transaction/Load Weight

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Totally legal. Totally accurate. Totally SASCO.

Horse Registration
ABC123GP

Trailer 1 Registration
XYZ456GP

Trailer 2 Registration
Select a Vehicle Reg No...

Cancel Next

FIRST ACTION:

Capture the registrations of the horse and trailer units, which can be automated via RFID, APNR cameras, or QR codes.

Weighbridge Admin

Transport Details
Weigh Face: ABC123GP
Vehicle Reg No: 123456
Capacity / Tare Weight: 15,000 / 15,000
Transporter Code: 12345 My Transporter
Driver Name 1st/2nd: John / Jane
Destination Location: 1234

Vehicle Details
Truck Number: 987654321
Date / Time: 2019/01/01 07:14:00
Plate Details: Plate Name: 123456, Num of Plates: 01
Total Permitted Gross: 15,000

Driver Details
Document Type: Invoice Parking Slip
Document Number: 12345678901
Customer No.: 123456789
Address: 1234567890

Product Details
Product Code: 12345
Customer H3: 0.00

Weighting Details
Weighing Unit: 36400
Weighing Unit: 36400
Weighing Unit: 36400

SECOND ACTION:

Weigh.

Capture Transaction/Load Weight

Registration: ABC123GP
Transporter Full Name: My Transporter
Transporter Address: 123456 Street, South Africa
Contact Person: John
Phone: 0123456789
Insurance Flucts: 123456789
Clear Type: 123456789
Gross Policy Number: 123456789
Type: None

Transporter Name: My Transporter
Contact Person: John
Contact Number: 0123456789


Flow: White MAX

THIRD ACTION:

Select the vehicle configuration so as to determine the correct permissible weights. This can be automated if the vehicles are loaded on the ProWeigh Fleet Master database.

Compliant Total Weight and Axle Weighing Ticket

Once the weighing process is complete, print the weighing ticket. If ProWeigh is set up to integrate with the User's IT system or Sasco Cloud, all the relevant weighing information will also be immediately transmitted electronically to this data destination.


THIS DOCUMENTATION IS COMPLIANT WITH THE NATIONAL ROAD TRAFFIC AMENDMENT ACT OF 2008			
		WEIGHBRIDGE TICKET SLIP	
		Horse Registration	: ABC123GP
		Weighbridge Name	: Sasco Demo Weighbridge 1
		Company Name	: Sasco Customer Demo Company
		Site Name	: My Test Location
Product	:		
TICKET NUMBER	WB T000068	TICKET DATE	2018/05/22 15:47:00
VEHICLE DETAILS			
Registration Number	ABC123GP	XYZ456GP	
Type	Horse	Trailer	****
Operator	My Transport	My Transport	****
Contact Person	****	****	****
Insurance Provider	****	****	****
Cover Type	****	****	****
Policy Number	****	****	****
TRADE WEIGHING DETAILS			
<u>First Weigh Details</u>		<u>Second Weigh Details</u>	
Weight (kg)	15 430	Weight (kg)	21 500
Date Time	2018/05/22 15:42.51	Date Time	2018/05/22 15:46.59
Operator	sa	Operator	sa
		<u>Weigh Calculations</u>	
		NETT Weight (kg)	6 070
		Product NETT (kg)	6 070
		Total Difference (kg)	6 070
		Total Cost	R0,00
<i>** Scale Weights have been manually overwritten by Supervisor **</i>			
LOADING DETAILS			
<u>Axle Groups</u>	<u>Actual kg</u>	<u>Permissible kg</u>	<u>Difference kg</u>
Group 1	5 100	7 700	(2 600)
Group 2	10 200	17 600	(7 400)
Group 3	6 750	7 000	(250)
TOTALS	22 050 kg	32 300 kg	(10 250)kg
CONSIGNEE DETAILS			
Consignee Code		Address	
Consignee Name			
Document Number	SAS0000000002	Contact Name	****
Document Type	Sales	Contact Number	****
Document Weight	0		
CONSIGNOR DETAILS			
Consignor Name	Sasco Customer Demo Company	Contact Name	****
Address	1 Test Street	Contact Number	0117654321

	JHB		

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Compliant Solas Weighing Ticket Format

Example of a typical paper form or electronic form SOLAS weighing ticket generated should this weighing option be selected.

SOLAS COMPLIANT WEIGHING TICKET		
	WEIGHBRIDGE NAME	Sasco P&W Pomona
	DATE AND TIME:	2018/07/11 8:00:00
	SANAS CERTIFICATE:	1121990
	CALIBRATION CERTIFICATE:	1121990
	CALIBRATION DATE:	2019/01/19

TICKET NUMBER	PM00002473	TICKET DATE	2018/07/11 8:00:00
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TRANSPORTER INFORMATION

Horse Registration:	TESTGP	Driver Name:	
Trailer 1 Registration:	TRAILER01GP	Captured by:	sa
Trailer 2 Registration:			
Transporter Name:	Test Company		

CARGO INFORMATION

Customer Name:	Test Company		
Container Number:	MSKU2666542		
ISO Type:	ST20		
Load Type:			
Container Tare:	10 000	kg	
Seal Number:	S12346		
Empty Vehicle Weight:	14 000	kg	
Gross Vehicle Weight:	80	kg	
Gross Cargo Weight:	-13 920	kg	
Net Cargo Weight:	-23 920	kg	

COMPLETED BY	_____	DRIVER	_____
DATE	_____	DATE	_____

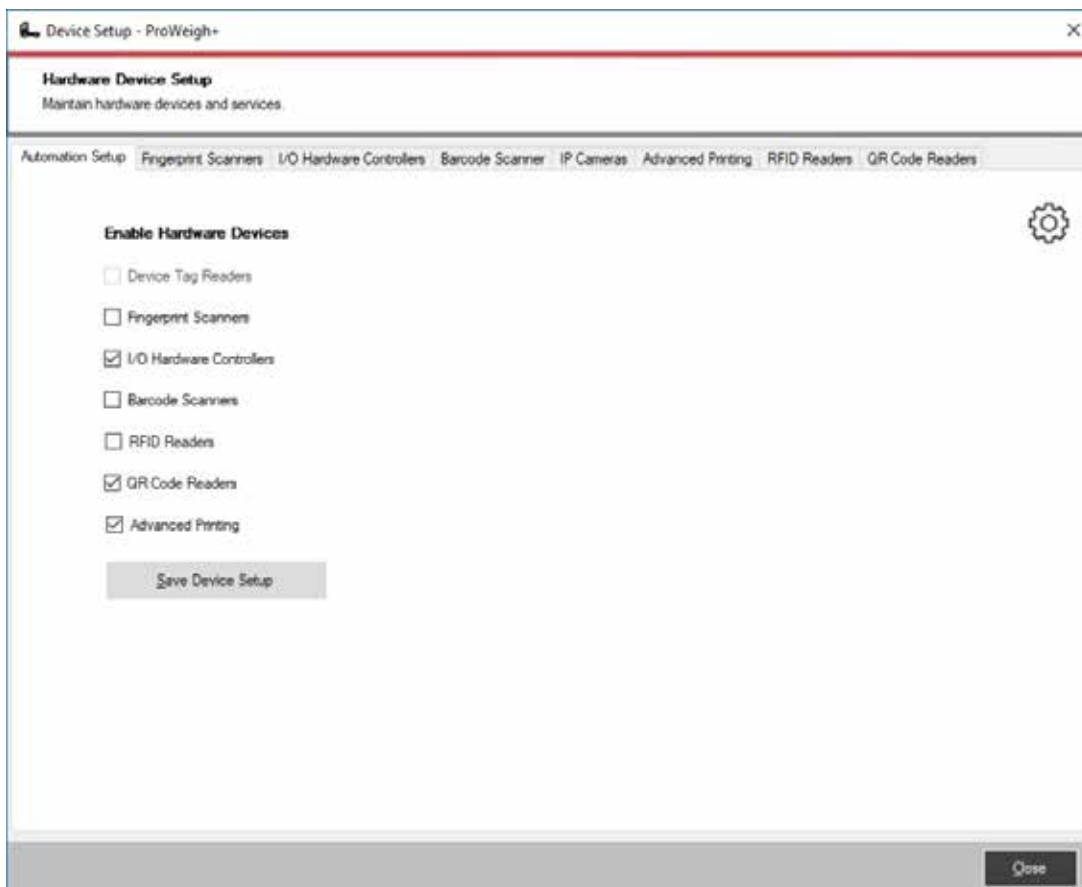
This document also confirms that the minimum mass of the drive axles have been checked and that the mass on the steering axle has been checked for both over and under loading.

Add-on Hardware Options

ProWeigh+ together with the DD1050 can accommodate the add-on of the following hardware devices:

- Robot
- Booms
- Cameras
- Electronic Display Board
- Bar Code Reader
- QR Code Reader
- RFID Reader
- Internet Communications Card

Additional automation hardware can be added without incurring development costs, simply through a standard menu driven activation process.



Application Example:

WB-AW

Company C animal feed company which mixes animal feeds and then delivers product to its customers using road tankers. Company C owns its tanker fleet and therefore knows the tare weight of each vehicle. Each tanker trailer is always assigned to the same horse. The facility is all paved, drainage is good but the facility is in an area of high lightning strikes.

Company C want to do one weighing of the tankers on the way out of the facility, wants to determine a trade approved total weight and wants to ensure the driver leaves the facility with a weighing ticket which is compliant with the Road Traffic Act.

Company C wants the site to be fully automated and to operate on an unmanned basis using APNR cameras. All weighing data must also be fully integrated with the company's ERP system.

The WB-AW combined with ProWeigh+ will be the optimal solution and would be configured as follows:

- One WB-AW weighbridges, with CPD load cells will be installed in the ground.
- One traffic light, one boom and one APNR camera will be mounted on the right of the weighbridge on the outbound approach side before the weighbridge, and one traffic light and one boom will be mounted on the right side of the weighbridge on the exit side.
- ProWeigh+ will be loaded on the PC's located in the site Operations Manager's office and a printer will be located in the security office at the exit gate.
- The entire fleet information will be loaded on the ProWeigh+ Fleet Master database.
- The PC will be networked to the DD1010 indicator, the weighbridge hardware comprising the booms, traffic lights and APNR camera as well as the printer.
- The relevant automation functionality of ProWeigh+ will be activated.
- The ERP interfacing functionality of ProWeigh+ will also be activated and the weighbridge PC connected to the customer network.

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WB-AW

On departure, the APNR camera will identify the truck by reading the number plate, all the truck and trailer details will be accessed from the Fleet Master file in ProWeigh+, the light will turn green, the boom will go up, weighing will take place, data will be transmitted to the ERP system, the second boom will go up, the second traffic light will go green and the truck will drive to the exit gate where the security guard will give the driver his weighing ticket.

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Technical Specifications

	SCPD Load Cells	S 500 Load Cells
Total Accuracy	+/- 99.95%	+/- 99.95%
Axle Weighing Accuracy	+/- 97.50%	+/- 97.50%
Installation	Above ground or pit	Above ground or pit
Deck Width	3m	3m
Deck Length	6m - 36m but normally 24m	6m - 36m but normally 24m
Number of Modules	One formed from 6m sections	One formed from 6m sections
Indicator	One - DD1010	One - DD1010
Indicator IP Rating	IP 48	IP 48
Load Cells	Ten - CPD	Ten - S500
Load Cell IP Rating	IP68	IP68
Dlink Required	No	Yes
Maximum Total Weigh	80 tons	80 tons
Maximum Axle Weigh	25 tons	25 tons
Reverse Calibration	Yes	Yes
Temperature Compensation	Yes	Yes
Maximum Number of Axle Groups	Unlimited	Unlimited
Total Weight Generated	Yes	Yes
Axle Weights Generated	Yes	Yes
RTA Compliant Ticket	Yes	Yes
SOLAS Weighing	Yes	Yes
Double or Single Weighing	Yes	Yes
Manned or Unmanned	Manned	Manned
PC Required	Yes	Yes
Option of Automation	Yes	Yes
Option of Unmanned	Yes	Yes
Option of Centralization	Yes	Yes
Direct IT Systems Interfacing Possible	Yes	Yes
Cloud Interfacing Possible	Yes	Yes
Pre- Loading of Fleet Possible	Yes	Yes
Deck Warranty	6 Years	6 Years
Instrumentation Warranty	12 months	12 months
Trade Approval	Yes	Yes

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