

Manual

AGRETO Hydraulic Scale

Indicator WA02

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1 Introduction

Thank you that you have chosen an Agreto three-point scale. You have acquired a robust tool for daily practice.

The Agreto three-point scale may be used solely for internal use as a checkweigher. A use for the legal transactions is not permitted.

Please read this manual carefully before using the scale in operation.

In this manual, as usual "weight" is used in common parlance, the term for the mass.

2 Scope of Delivery

- 1 Pressure sensor with 3 m signal cable
- 1 Weighing display with weighing software, housing and mounting bracket
- 2m Power supply cable
- 1 Manual

3 Intended Use

The AGRETO hydraulic scale is designed for installation in the lifting hydraulics of forklift trucks and front loaders with single-acting lift cylinders.

The pressure sensor measures the pressure in the hydraulic circuit, the display converts this pressure into the weight and displays it.

In order to get meaningful values, the system must be calibrated after fitting with a known weight.

To perform weighings the instructions in this manual must be followed.

When using the system in front loaders, the position of the load and the lifting height has a significant influence on the accuracy.

A weighing on the basis of the hydraulic pressure in the rear hydraulics of a tractor is not possible due to the different leverage and rotational movements of the lifting rod!

4 Security

4.1 Safety Instructions for the buyer



Important!

Make sure that each person who works for the first time with the AGRETO Hydraulic Scale, has read and understood this manual.

4.2 Safety instructions for the operator



Danger!

The AGRETO Hydraulic Scale may only be operated by persons who are familiar with the operation of the device.



Precaution!

Keep the work area clean! Soiled areas contributes to accidents.



Danger!

Risk of injury from tip-over / fall and inattention while working with the measuring instrument getting on and off the tractor.

4.3 Personal Protective Equipment



WARNING!

For people who work with the device, the wearing of safety shoes is required.

4.4 Residual Hazards

Working with the device residual risks may arise for persons and objects that cannot be prevented by design or technical protection measures.



WARNING!

The AGRETO Hydraulic Scale must not be operated in explosive areas.

5 Technical Specifications

5.1 Pressure Sensor

- Maximum pressure: 250 bar
- Overload 120%, breaking load 150%
- Accuracy: +/- 0,1%
- Working temperatur: -20 to +65 ° C
- Temperature compensation: -10 bis +50 °C
- Hydraulic connection: M14 x1,5 inner angle 37°

5.2 Weighing Indicator

- 5-digit E-ink display mit 20mm digit height
- Power supply 12 VDC
- Tare by pressing a button (zero position of the empty device)
- Sum function (also possible via external switch)
- Vibration damped display for reading while driving

5.3 Cabling

- 3m weighing signal cable, optional extensioncables availibel
- Waterproof screw connector (IP68)
- 2m power supply cable for the weighing indicator

6 Installation

6.1 Installation of the Pressure Sensor

- Find a suitable place between the controller and cylinder in the pressure line of your hydraulic system. If any control valves and blocking valves are used, the pressure sensor must be mounted between these valves and the cylinders.
- Disconnect the hydraulic line at a threaded connection and arrange the necessary fittings, such as T-piece, socket, etc., these are very individual and are not supplied with the hydraulic scale.
- If no proper separation point is present, you must remove a piece of hose and let press in a T-piece.
- Mount the pressure sensor and route the signal cable to the area of the weighing indicator.



6.2 Installation of the Weighing Indicator

- Place the weighing indicator at a suitable location in the vehicle.
- Connect the power cable to positive and negative to the on-board electrics. The display can be operated with 12 V.
- Connect the plugs of the weighing signal cable.

No.:	Color	Description	Function
1	Black	EX -	Power supply -
2	Red	EX +	Power supply +
3	White	SI -	Signal -
4	Green	SI +	Signal +

7 Settings of the Weighing Indicator

After installing your sensor and connecting with the indicator you have to recalibrate the indicator.

- Please look for a known weight that you can lift with your Hydraulic loader that is as high as possible (at minimum 1.000kg).
- Lift the hydraulik to your weighing position
- press the 0/cal button to set the 0 level
- lift the known weight with your loader to the weighing position
- press the 0/cal button for 5 seconds
- choose the correct weight with the arrow buttons
- Save the calibration with ENTER

8 Working with the Hydraulic Scale

8.1 Switching on the Weighing Indicator

Turn on the weighing indicator with the ENTER button. The display shows a startup sequence then the current weight on the scale, referenced from the zero point of the last calibration.

If you have performed calibration with the currently attached tool, and have used this tool as the zero point in this calibration, the empty device then applies the zero point. You can read the current weight of the load also after switching off and switching on the weighing indicator.

8.2 Zeroing

Press the 0/cal button, the zero point of the display is reset. Use this function to zero the scale in weighing position. Thus, the zero point is set to the empty weight of the tool and the weight of the load can then be read directly.

When the weighing indicator is switched on the zero-point from the last calibration is used.

8.3 Standard weighing procedure

Loading / filling your tool, bring front loading (forklift mast) in weighing position and read the weight from weighing indicator.

8.4 Weighing with Sum-function

- Bring your front loader (forklifts) in weighing position, wait until the weight is stable and press the Σ button. Thus, the current weight is added to the total weight
- the sum is shown underneath the actual weight
- To delete the total push and hold the Σ button.

8.5 Switching off the Weighing Indicator

Press and hold the leftmost button until the weighing indicator goes out.

9 Warranty

Over and above statutory warranty for AGRETO hydraulic balance following warranty provisions apply :

- The AGRETO electronics GmbH guarantees the function and repairs or replaces all the parts that have a material or manufacturing damage within the warranty period.
- Warranty services will be performed by the AGRETO electronics GmbH.
- The decision on the existence of a warranty claim is sole responsibility of the AGRETO electronics GmbH.
- The warranty period begins with the first accounting to an end customer and ends 5 years from this date of invoice.
- Prerequisite for warranty service are the presentation of the original invoice and compliance with all elements of this instruction manual.
- Excluded from warranty are wear, normal wear and tear, damage due to misuse, negligence or accident.
- When processing a warranty claim transport costs incurred will be charged to the buyer.

10 Disposal



Dispose the product in the definitive shutdown or parts of environmentally friendly (metal to the respective metal scrap, plastic to plastic waste, etc. - Do not dispose as household waste!)

Detailed information can be found in Directive 2002/96/EC

11 Declaration of Conformity



EC Declaration of Conformity

For the following named product

AGRETO Hydraulic Scale

This is to confirm that it complies with the essential protection requirements of Council Directive on the approximation of the laws of Member States relating to electromagnetic compatibility (2004/108/EC).

For the evaluation regarding electromagnetic compatibility, the following standards were applied:

EN 61000-6-3:2001
EN55022:1998
EN60601-1-2:2007

And with reference to Security:

EN60950:2000

This explanation is given by the manufacturer

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Submitted by:

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26.02.2014



legally binding signature

12 Imprint

All information, specifications and illustrations are as of 2022, subject to technical changes or design changes.

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