testing solutions since 1954

Operating Instructions

Check Device
for manual analogue and digital hardness testers

testing solutions since 1954

List of Contents

1 Safety Hints

While working with the check device, named as testing device in the following, you should obey the following hints:

- The testing device may only be used for the control of the reading accuracy of manual hardness testers acc. to Shore and L/c, as described under "Ranges of Application".
- Works on the testing device may only be done by authorized persons.
- The testing device is to be sheltered from dusty, oily, greasy and metal-dusty air, sources of heating (direct sun beaming, ovens), humidity, wetness and vibration as well as from damage caused by falling down.
- For cleaning of testing device you should only use smooth cleaning agents, in order to avoid damaging the surfaces. The cleaning cloth should be soft and lint free.
- Alcohol, gasoline, diluents or other easily inflammatory substances may not be used. The use of such substances can lead to fires.

2 Ranges of Application

Test Method	Norms	Range of Application
Shore A	DIN 53505, DIN EN ISO 868, FN EN ISO 868, ISO 7619, ASTM D 2240	Control of the spring characteristics
Shore D		
Shore B	ASTM D 2240	
Shore 0	ASTM D 2240	
Shore E	ASTM D 2240	
Shore A0	ISO 7619	
Shore C	ASTM D 2240	
Shore D0	ASTM D 2240	
L	PV 3931	
L/c		

3 Technical Details

Test Method	Spring Force [cN]
Shore A	806,50
Shore D	4450,00
Shore B	805,00
Shore 0	805,00
Shore E	805,00
Shore A0	805,00
Shore C	4445,00
Shore D0	4445,00
L	806,50
L/c	806,50

4 Starting Up

4.1 Control of Contents

Check the supplied equipment for completeness and soundness;
See "delivery note".

4.2 Installation of Testing Device

4.2.1 Measuring Ranges Shore A, B, 0, A0, E and L, L/c

- Screw balancing weight Shore A (1.01) and knurled nut (1.02) on threaded spindle (1.03) of balance beam (1.04).

The knurled nut attaches balancing weight.

- Push sliding weight Shore A (1.05) to Zero position "A" (1.07).

The latch (1.06) of the sliding weight points to the free end of the balance beam.

- Twist balancing weight until line marks (1.08) are congruent.
- Fix balancing weight by knurled nut.

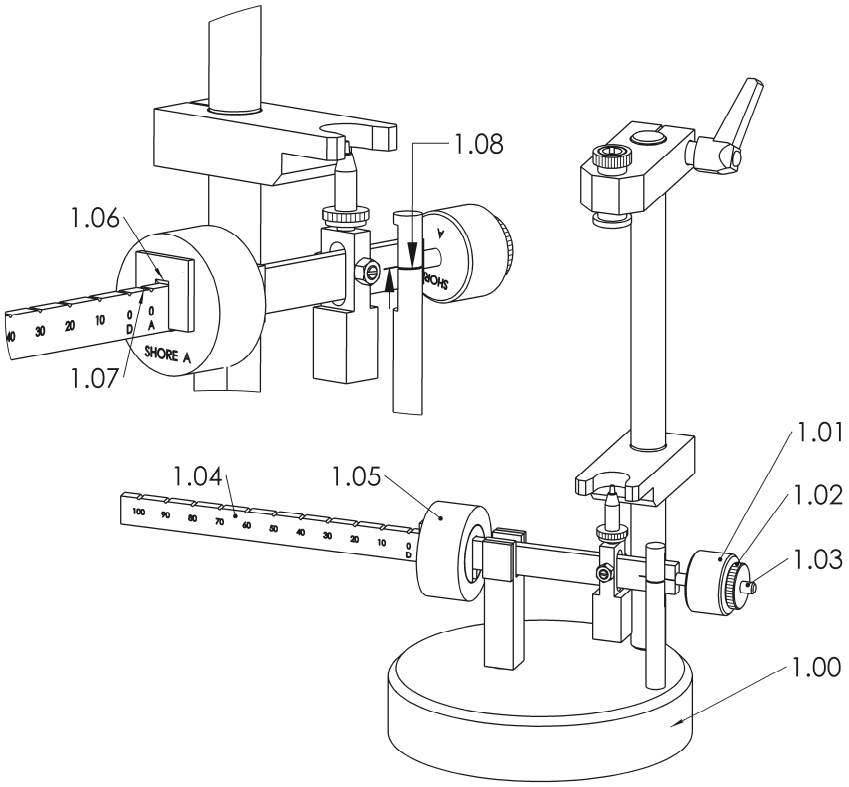

FIG. 1 INSTALLATION OF MEASURING RANGES SHORE A, B, 0, A0, E AND L, L/C

4.2.2 Measuring Ranges Shore D, C, D0

- Screw balancing weight Shore D (1.09) on balancing weight Shore A (1.01).
- Tighten knurled screw (1.11).
- Push sliding weight D (1.10) to Zero position "D" (1.12).

⚠ The latch (1.06) of the sliding weight (1.10) points to the free end of the balance beam (1.04).

- Twist balancing weight (1.09) until line marks (1.08) are congruent.

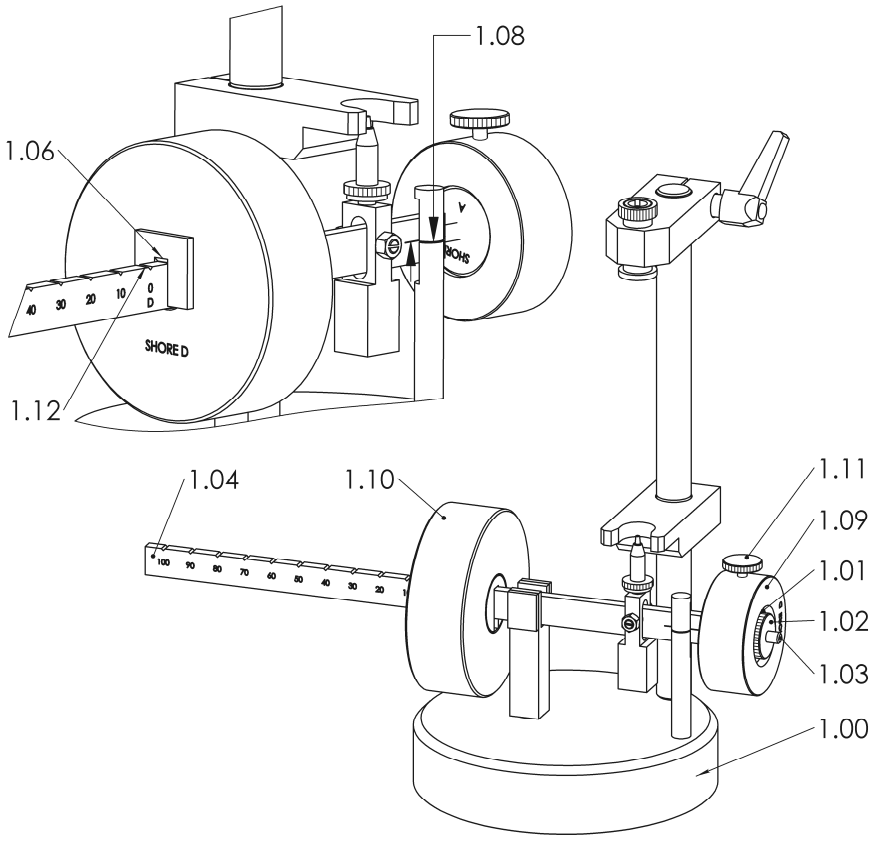

FIG. 2 INSTALLATION OF MEASURING RANGES SHORE D, C, D0

5 Checking Procedure

5.1 Insertion of the Hardness Tester

- Loosen clamping lever (1.13) and move clamping bracket (1.14) up until hardness tester (2.00) can be inserted.
- Insert hardness tester.
- Tighten clamping lever.
- Fix hardness tester by knurled screw (1.15).
- Adjust stilt (1.16) to the indenter (2.01), so that the indenter looms into drilling of the stilt.

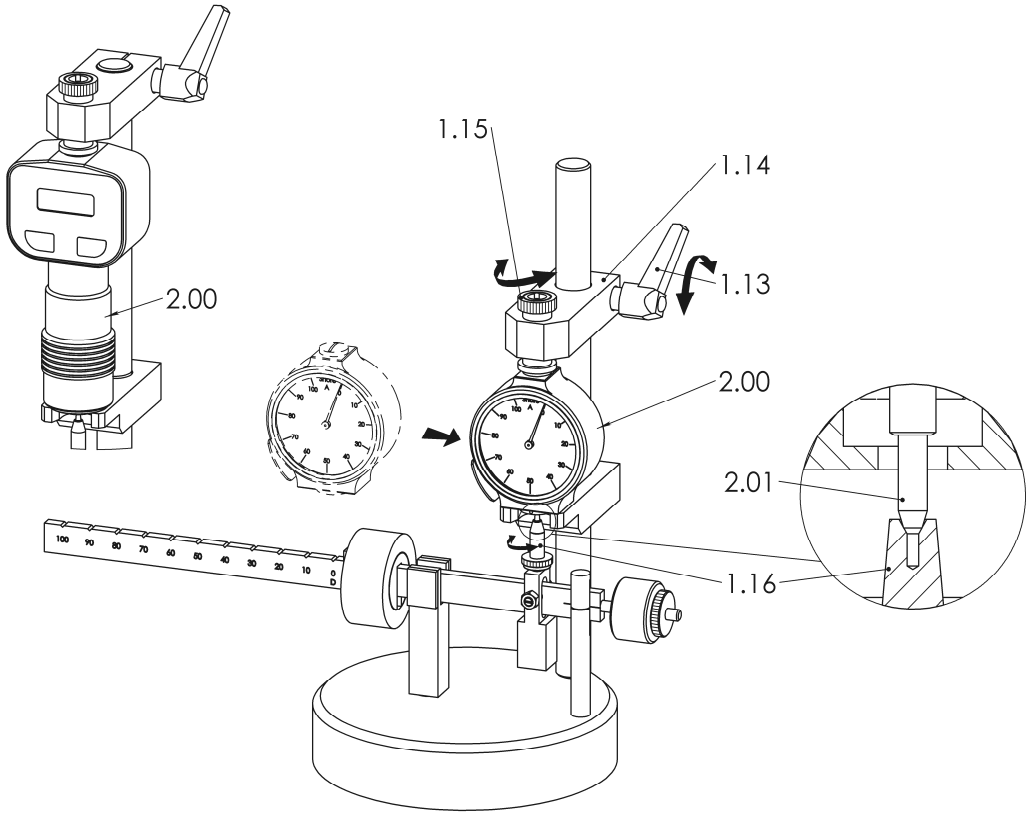

FIG. 3 INSERTION OF THE HARDNESS TESTER (HP- AND HPE II SHORE A)

5.2 Control of the analogue Hardness Tester HP

- Twist the stilt (1.16) until line marks (1.08) are congruent.
- Push sliding weight (1.05) to the next notch (1.17).
- Twist the stilt until line marks are congruent

Repeat this procedure for each notch (1.17).

- Check if pointer (2.02) of hardness tester (2.00) complies with the notch on the balance beam (1.04).

The allowed deviation acc. to standards is ± 1 SHORE.
At a bigger deviation the hardness tester (2.00) should be sent to manufacturer for means of control and recalibration works.

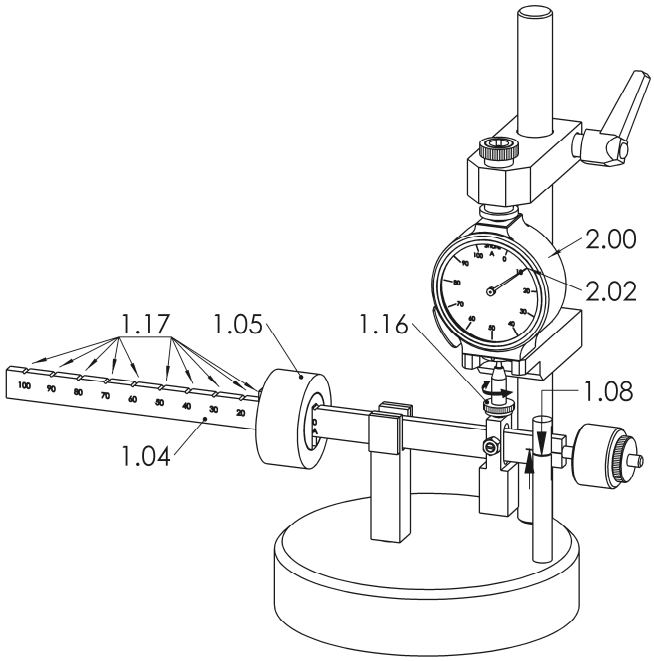

FIG. 4 CONTROL OF ANALOGUE HARDNESS TESTER HP

5.3 Control on analogue Hardness Tester HP with Trailing Pointer

- Twist trailing pointer (2.03) for position over "100" (2.04)

Proceed as under "Control of analogue hardness tester HP".

- Twist trailing pointer back for position "0" (2.05), after the checking procedure, so that it is in contact with the pointer (2.02).

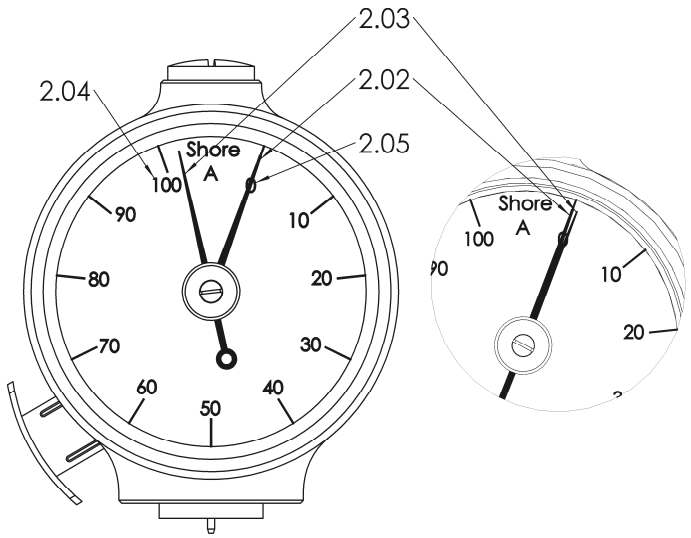

FIG. 5 CONTROL OF ANALAGUE HARDNESS TESTER HP - TRAILING POINTER

5.4 Control of digital Hardness Tester HPE II

- Switch on the HPE II (2.00).
- Set measuring time for 0 s.

See operating instructions HPE II.

Proceed as under "Control of analogue hardness tester HP".

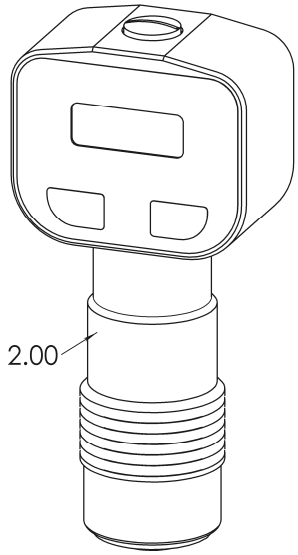

FIG. 6 CONTROL OF DIGITAL HARDNESS TESTER HPE II

6 Standard Volume of Delivery

See delivery note

7 Extra accessories / Spare parts

article No.	denomination
dkd09008	official DAkkS / DKD-calibration certificate for testing device for spring force Shore A
fm01000	balancing weight and sliding weight Shore D
dkd09009	official DAkkS / DKD-calibration certificate for testing device for spring force Shore A and Shore D
fm01350	control ring 40 Shore - for control of measuring distance -
dkd01111	official DAkkS / DKD-calibration certificate for control ring 40 Shore
fm01351	control ring 60 Shore - for control of measuring distance of Shore A, B, 0, A0, E, L, L/c
dkd01112	official DAkkS / DKD-calibration certificate for control ring 60 Shore
fm01353	control ring 80 Shore - for control of measuring distance of Shore A, B, 0, A0, E, L, L/c
dkd01114	official DAkkS / DKD-calibration certificate for control ring 80 Shore

8 Conditions of warranty

The duration of the warranty please take from our common business conditions "AGB's" (see : www.bareiss.de)

⚠ There is no claim of guarantee for damages or faults caused by:

- ignoring the correct connection
- inappropriate handling
- neglecting the operating instructions
- repair works on digi test by persons without authorization
- removing the type plates

9 Info about the return of goods

Dear Customer,

we ask you to check the testing device before you return it to us because there could be e.g. a defect or malfunctioning.
If there are be some uncertainties we are glad to be of help for you by our telephone / fax / E-Mail service.

In order to avoid further questions please send us a precise fault description.
For **calibration** the **testing device** should be sent in **transport case.**

A transport suitable packing protects from transport damages and thus resulting costs.

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10 Disposal

Environmentally sensible disposal of electrical and electronic equipment
Electrical and electronic equipment contains valuable materials which should be supplied to recycling or recovery.
Please dispose of electrical and electronic equipment at qualified collecting points separate from municipal waste.

11 Care

For cleaning of testing device only mild and inflammable cleaners should be used, in order to avoid damages of the surfaces of the electronic unit.
Alcohol, gasoline, diluents or other easily inflammatory substances may not be used for the cleaning or maintenance of the instrument.
The use of such substances can lead to fires.
The cleaning cloth should be soft and lint free. Cleaners with alcohol or spirits, cleaning powder or diluents attack the housing. Do not use!

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