

HD-30 PLUS

HD-40

MANUAL



Worldwide Symbol of Quality

NOTE

Koch-Achsmessanlagen guarantees flawless operation of the device upon delivery and initial commissioning. We assume no liability for inaccurate measurement results resulting from incorrect or improper handling of the system.



SAFETY INSTRUCTIONS generally

Please read the instruction manual carefully before use!

The HD-30 PLUS wheel aligner must be installed and used exactly as per the instructions.



SAFETY INSTRUCTIONS for Wheel alignment device HD-10

The HD-40 wheel aligner is intended exclusively for use on vehicles and may only be used by trained personnel. All regulations of the trade supervisory authorities, professional associations, vehicle manufacturers, environmental protection regulations, as well as all laws, regulations, and codes of conduct for safe work in the workshop must be observed.



SAFETY MEASURES Risk of injury

When working on the vehicle, there is a risk of injury if the vehicle rolls away. Therefore, secure the vehicle against rolling away. Apply the handbrake and, in automatic vehicles, also set it to park.



SAFETY MEASURES Laser

When working with the laser, there is a risk of eye injury due to glare.

Therefore, observe the following:

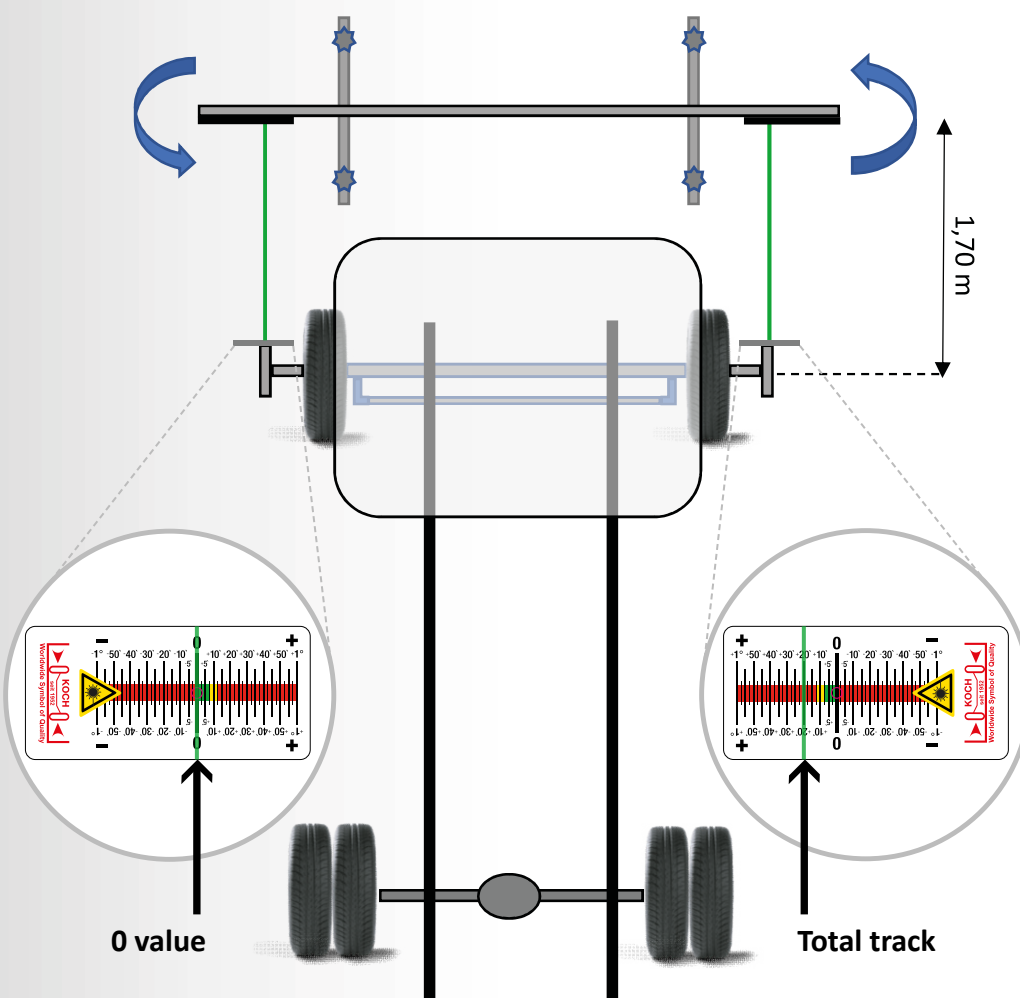
- Do not point the laser beam at people, windows, or doors.
- Never look directly into the laser beam.



LASERSTRAHLUNG
NICHT IN DEN STRAHL BLICKEN
LASER KLASSE 1M
MAX. LEISTUNG 5mW
520 nm
NACH DIN EN 60825-1: 2015-07

Quick measurement of the **TOTAL TRACK**

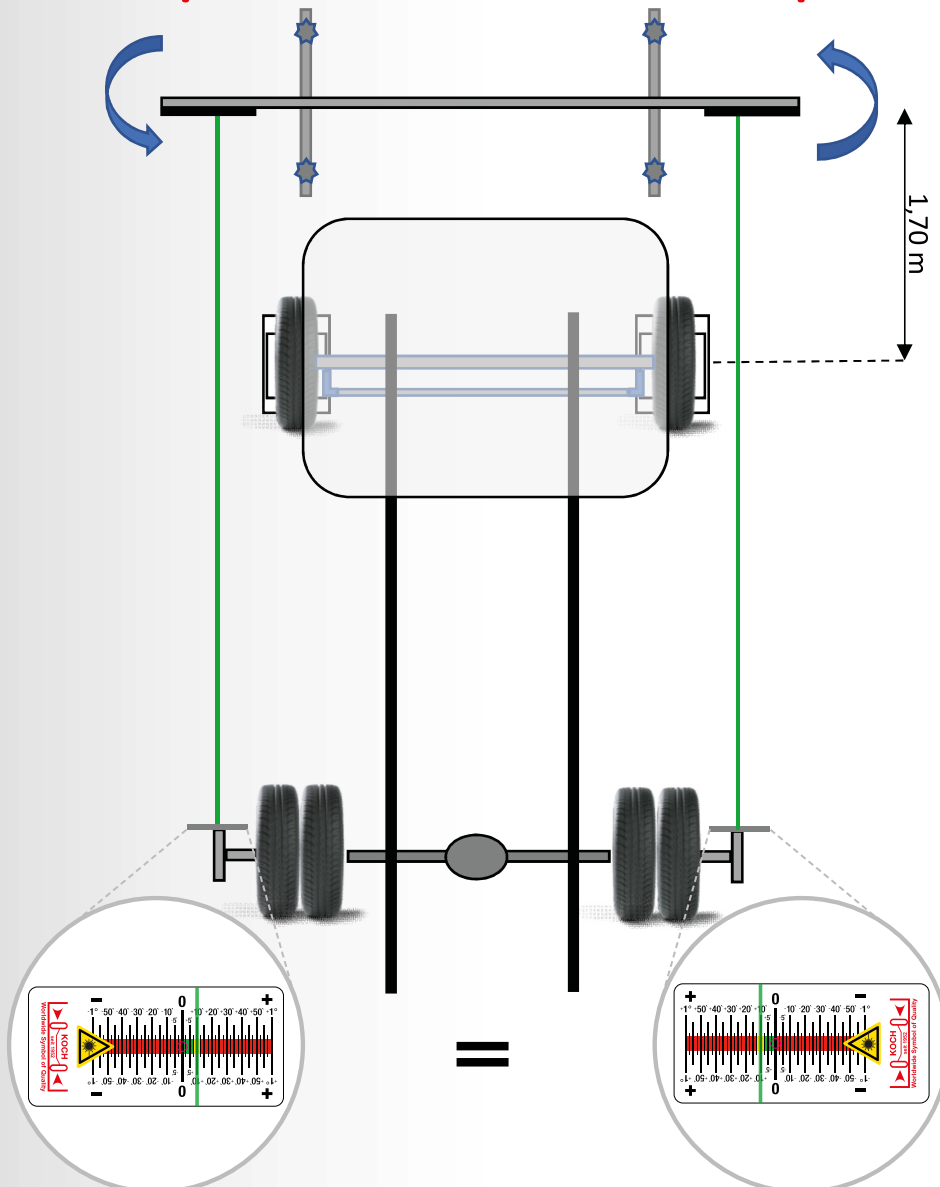
1. Mount the laser measuring heads on the front axle.
2. Position the mirror measuring traverse 1.70 m in front of the front axle.
3. Shine the light into the mirrors and back onto the scale on the measuring head.
4. Rotate the measuring traverse axially until **0** appears on one side of the scale on the measuring head.
5. Read the **TOTAL TRACK** on the other side.



Measuring and adjusting the **TOTAL TRACK 1/2** to the driving axis

1. Drive the vehicle onto the turntables.
2. Mount the laser measuring heads on the **rear axle**.
3. Position the mirror measuring traverse 1.70 m in front of the front axle.
4. Shine the light into the mirrors and back onto the scale on the measuring head.
5. Rotate the mirror traverse axially until the same value appears on both scales.
Pay attention to the + and - signs!

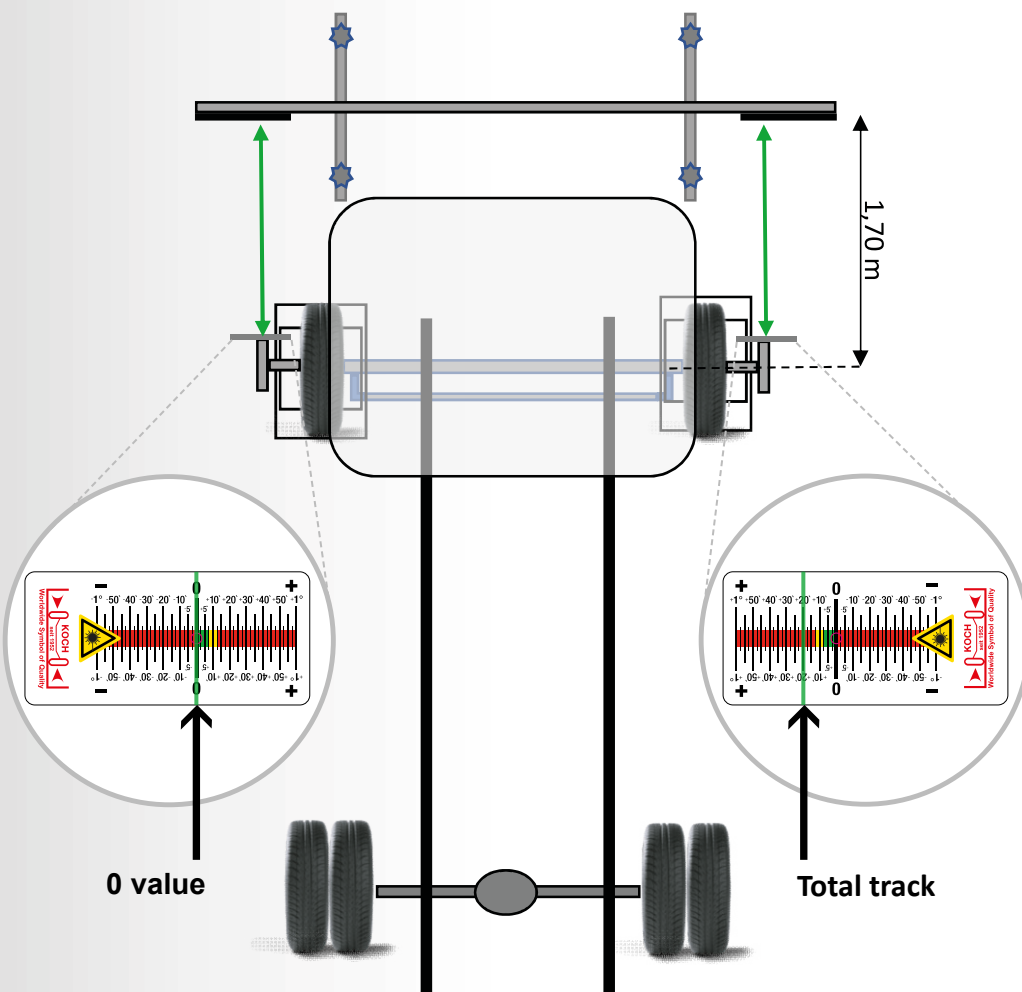
! Lock the mirror traverse with locking screws !



Measuring and adjusting the **TOTAL TRACK 2/2** to the driving axis

1. Mount the laser measuring heads on the **front axle**.
2. Shine the light into the mirrors and back onto the scale on the measuring head.
3. Use the steering wheel to set the laser point on the driver's side to 0.
4. Turn the tie rod until the desired toe value is reached on the passenger side.

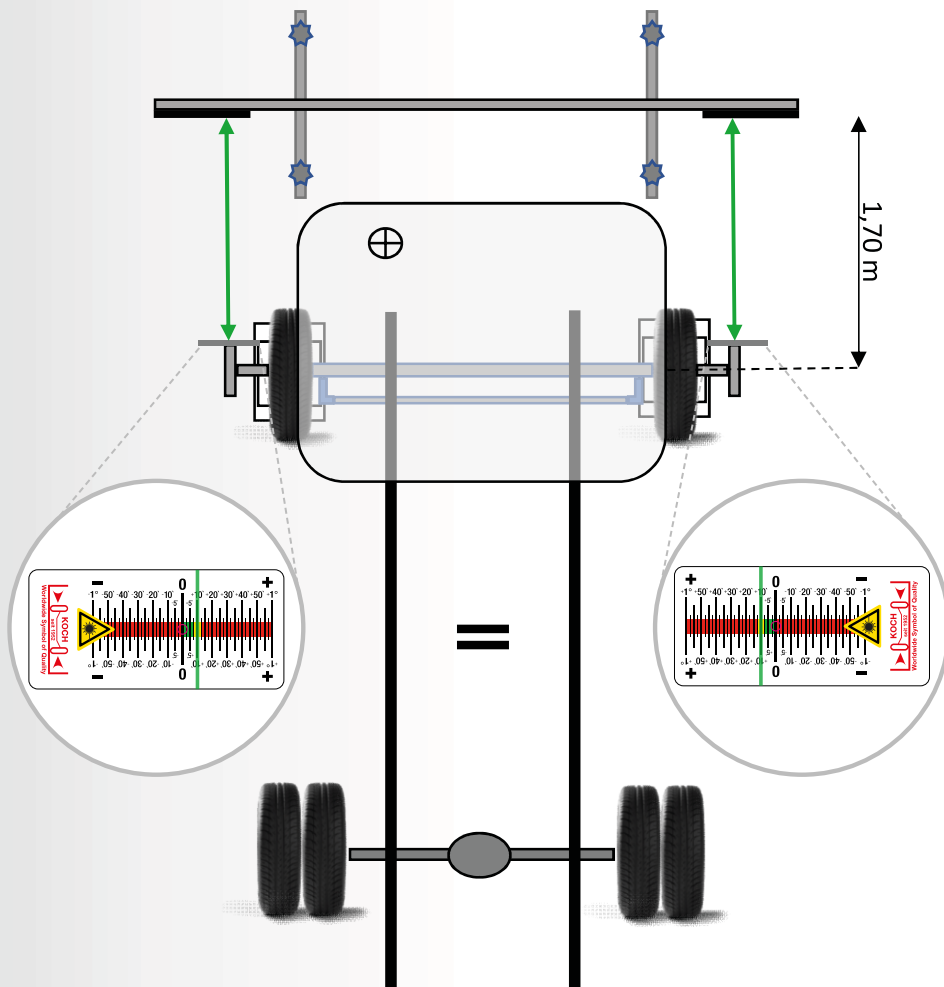
The laser point on the driver's side must remain at 0.



Attention! The position of the mirror traverse must not be changed!

Measuring and adjusting the steering center to the driving axis

1. Turn the steering wheel until the same reading is achieved on both scales on the measuring heads.
2. Check the markings on the steering gear.
3. If the markings do not match, adjust the steering pushrod.



Attention! The position of the mirror traverse must not be changed!

Adjust push rod 2nd Front axle

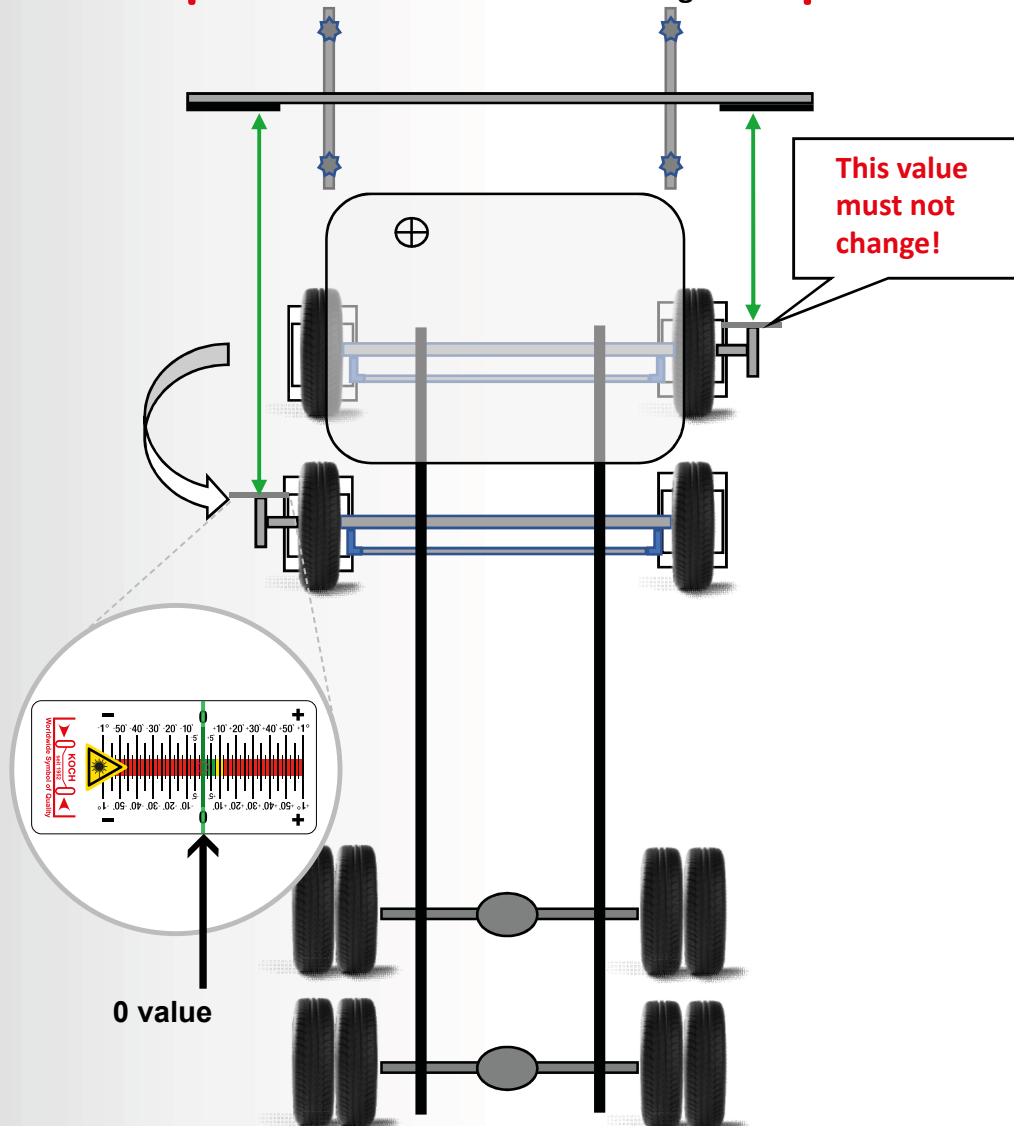
! ATTENTION The first front axle must be correctly adjusted !

1. Mount the **driver's side laser measuring head** on the second front axle.
2. Shine the light into the mirror and back onto the scale on the driver's side measuring head.
3. Adjust the push rod until **0** appears on the driver's side.

Make sure that the first front axle does not move!

4. Start the engine. Adjust for joint play and tension by moving the steering wheel left and right. Check the values and adjust them if necessary using the push rod.

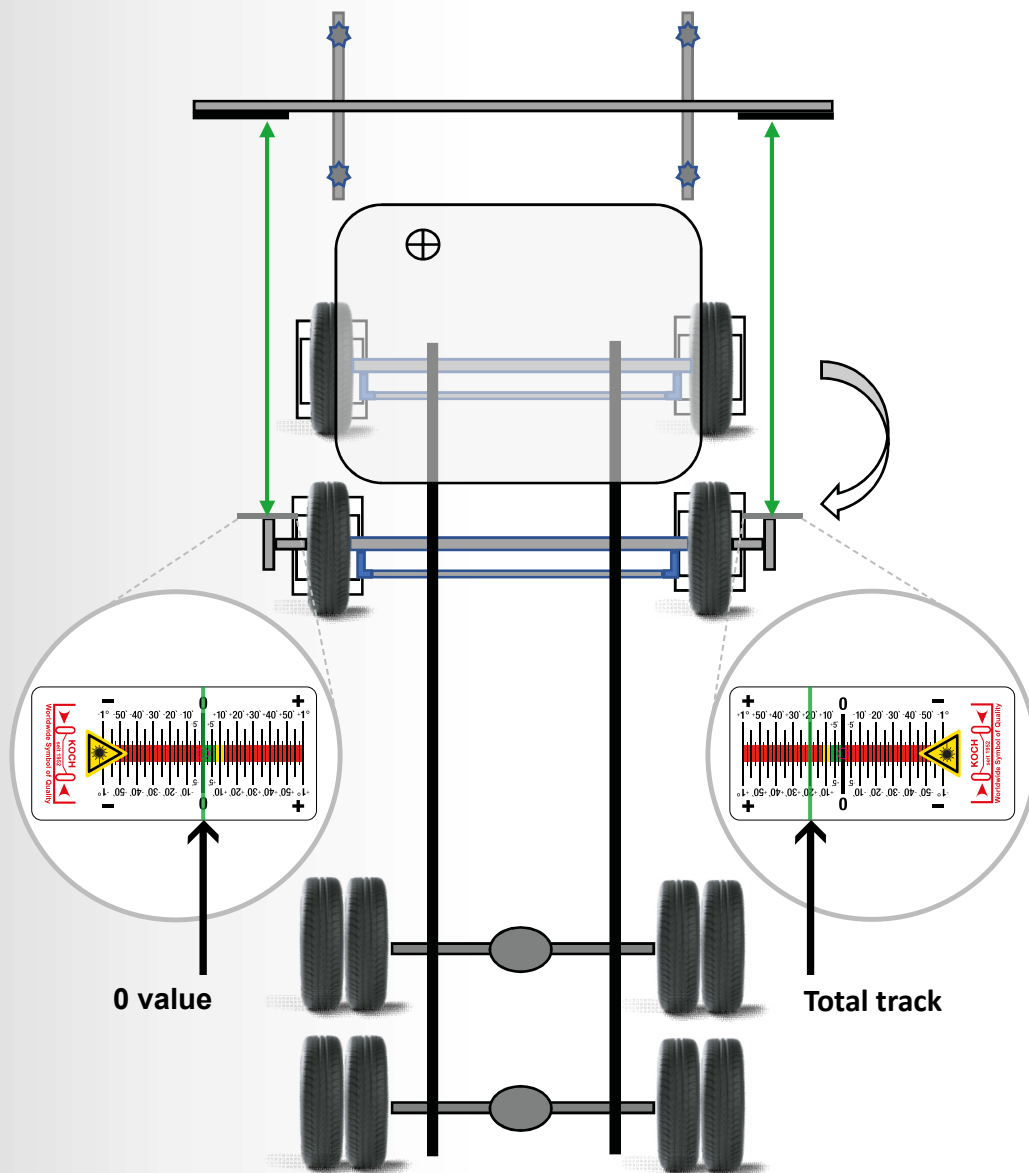
! Lock the mirror traverse with locking screws !



Track adjustment 2nd front axle

1. Mount the **driver's side measuring head** on the second front axle.
2. Shine a light into the mirror and back onto the scale on the gauge head.
3. The reading on the driver's side should read 0. If necessary, adjust the reading to 0 using the steering wheel.
4. Adjust the tie rod until the desired reading is reached on the passenger side.

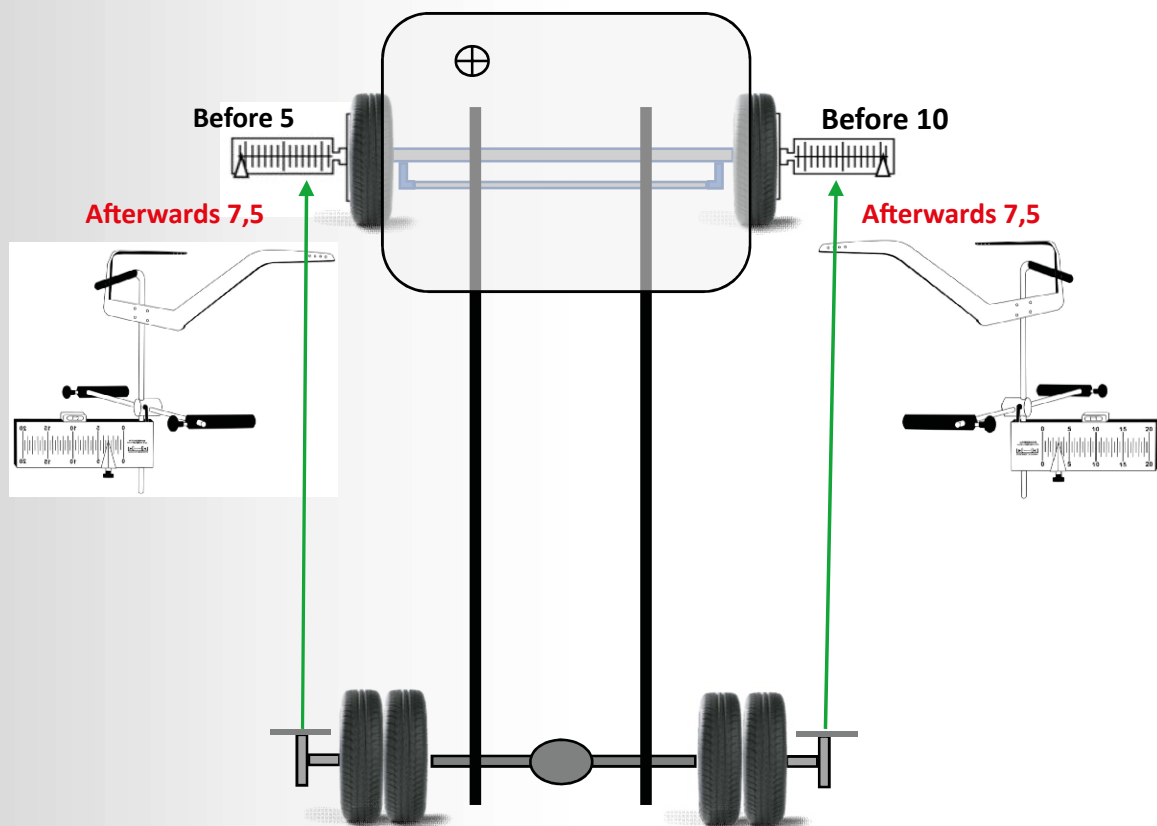
Make sure the reading on the driver's side does not change!



Align drive axle

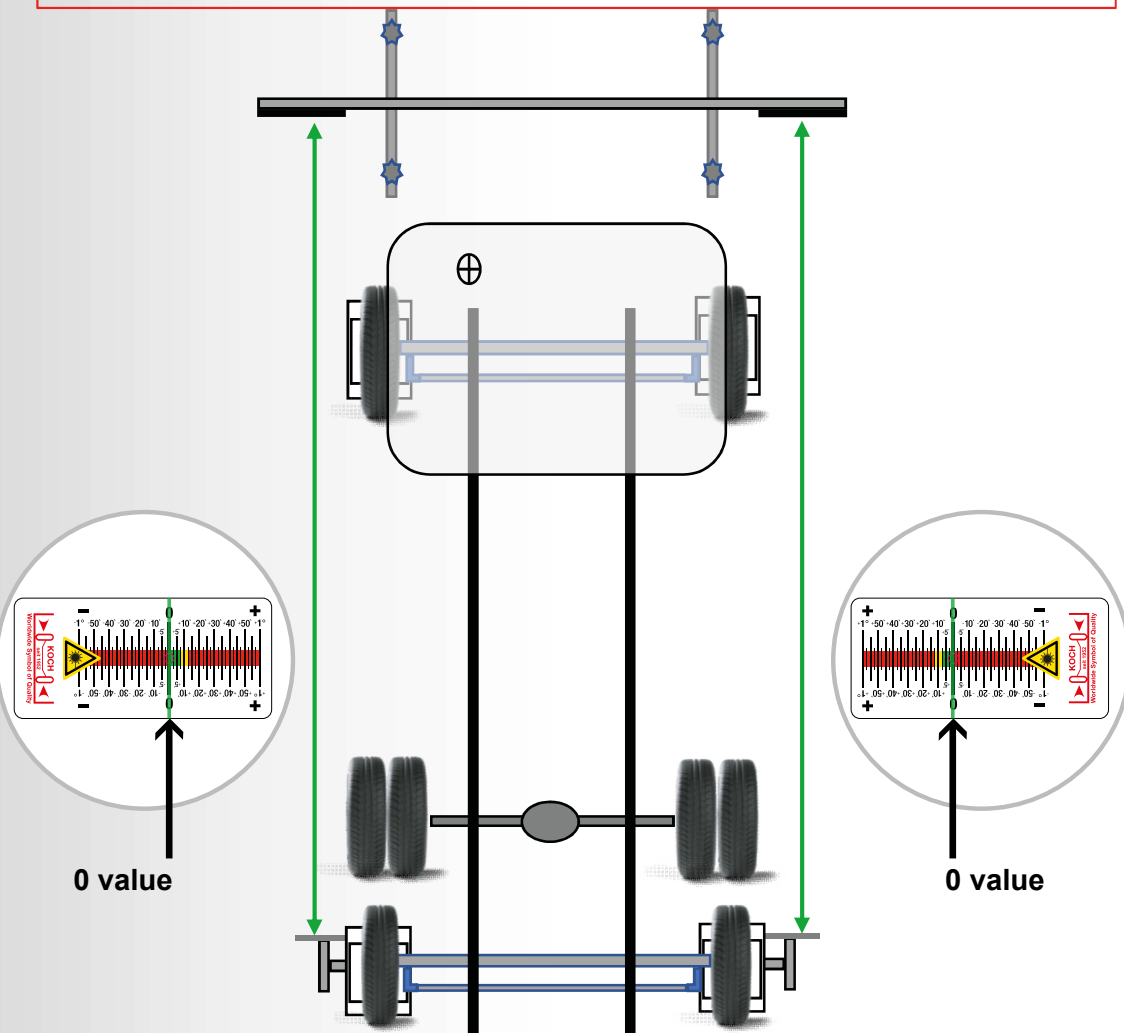
1. Mount the measuring heads on the drive axle
2. Mount the suspension scales on the front axle
3. Shine a light on the scales on the front axle and read the values
4. If possible, align the axle until the reading is the same on both sides

Example: **Before: 5 on the left and 10 on the right**
 Afterwards: 7.5 on the left and right



Adjust leading/trailing axle (forced steering)

1. The first axle must be traveling straight ahead!
2. The mirror crosshead is aligned with the drive axle!
3. Mount the measuring heads on the front and rear axles.
4. Shine a light into the mirrors and back onto the scales on the measuring head.
Use the attachable scales with the corresponding wheelbase.
5. Adjust the push rod (H-cylinder) until 0 is reached on the control side.
6. Adjust the tie rod until 0 is reached on the other side.



HD-30 Plus / HD-40



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