

VOLVO GROUP WHEEL ALIGNMENT 2025

INCLUDING STATIC ADAS CALIBRATION



BAD WHEEL ALIGNMENT WILL RUIN YOUR CUSTOMER'S ECONOMY!

A properly aligned vehicle can reduce fuel consumption costs by up to 5%. Bad wheel alignment also increases tire wear. A wheel alignment diagnosis gives you the opportunity to plan ahead. With the help of the wheel angle measurements from a diagnosis, necessary adjustments can be made and you can avoid unnecessarily high fuel consumption and tire wear costs.

CALCULATION EXAMPLE, **FUEL**

Fuel cost reduction: 3%

Mileage/year: 200,000 km

Fuel price: 1.5 EUR/litre

Fuel consumption: 4 litres/10 km

Total cost reduction/year:

$0.03 \times 200,000 \times 1.5 \times 0.4 = \mathbf{3,600 \text{ EUR}}$

CALCULATION EXAMPLE, **TIRES**

Premature tire change, 2 tires/year

Tire cost: 350 EUR/tire

Cost reduction/year:

$350 \times 2 = \mathbf{700 \text{ EUR}}$



Estimated
fuel/tire cost
reduction per year:
EUR 4,300*

* Cost for wheel alignment not included in the calculation

Source, fuel cost reduction:

Survey performed during 2013 on 500 vehicles from 12 different companies
by the research institute TNO, Holland

WHAT HAPPENS WHEN THE WHEELS ARE MISALIGNED?



 **BAD STEERING CAPABILITY
AND DRIVING DISCOMFORT**

 **MECHANICAL WEAR**

 **INCREASED AIR RESISTANCE**

 **INCREASED TRACKING
SENSITIVITY**

 **INCREASED FUEL
CONSUMPTION**

 **TRAFFIC HAZARDOUS
VEHICLE**

 **INCREASED TIRE WEAR**

VOLVO GROUP WHEEL ALIGNMENT

This compact wheel alignment system enables truck and bus workshops, as well as tire service centers, to offer wheel alignment services quickly and accurately.

With our patented camera technology with the chassis center line of the vehicle as reference, the following wheel angles can be measured:

- Toe, steering box position, camber, out of square, parallelism and axle offset
- Caster, KPI, Toe Out On Turns and max turn

Enabled by the unique rolling method, toe and camber measurements may be taken while the vehicle is in driving position. No lifting of the axles with run-out compensation is required, alternatively the system can also be operated with standard run-out procedure.

Wireless technology is used for transmitting data between measuring units and the computer. The computer software guides the user through the measuring process and prints out measurement reports of values, before and after alignment.



HEAVY VEHICLE ALIGNMENT WITH CAMERA TECHNOLOGY



Description	Specification
Measuring range	
Toe	±40 mm/m
Camber	±6°
Caster	±20°
KPI	±20°
Max. turn	65°
Measuring accuracy	
Toe	±0.2 mm/m (for each camera)
Camber	±3 min (for each camera)
Operational time	14 h
Charging time	3 h
Computer requirements	See latest updated information on www.josam.se



MEASURING CASTER, KPI AND TURN ANGLES

This measurement is based on a single continuous movement of the wheels, from a straight ahead position to maximum left, via maximum right and back to the starting position.

During this procedure the built-in gyroscope and inclinometer are constantly transmitting data to the computer, which calculates the caster, KPI and turn angles in different wheel positions. The entire process can be carried out in a matter of minutes.

STATIC ADAS CALIBRATION

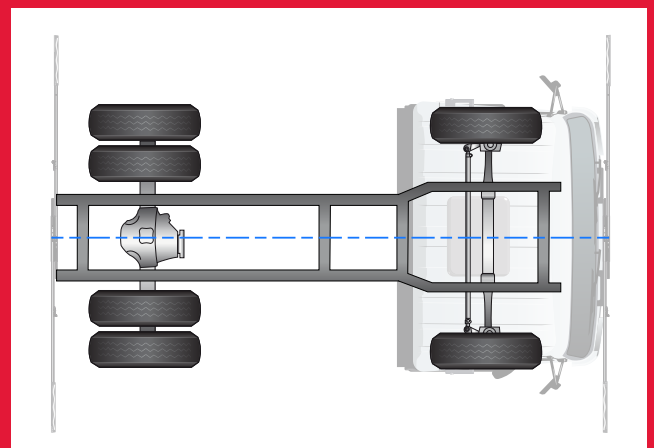
To calibrate the ADAS (FLC/FLR & LPOS/FLS) without having to drive the vehicle has many advantages:

- Only one operator is required.
- Safer, as the truck remains in the workshop.
- Avoiding traffic jams and bad road conditions.
- Supports OEM requirements on correct wheel alignment before calibration.
- Simple positioning for calibrating with Tech Tool.

MEASUREMENT PRINCIPLE AND SCALABILITY

The Volvo Group wheel alignment system uses the centerline principle to determine the position of axles and individual wheels in relation to the centerline of the vehicle.

The system is designed to measure wheel angles on commercial vehicles such as trucks, trailers, buses and light commercial vehicles.

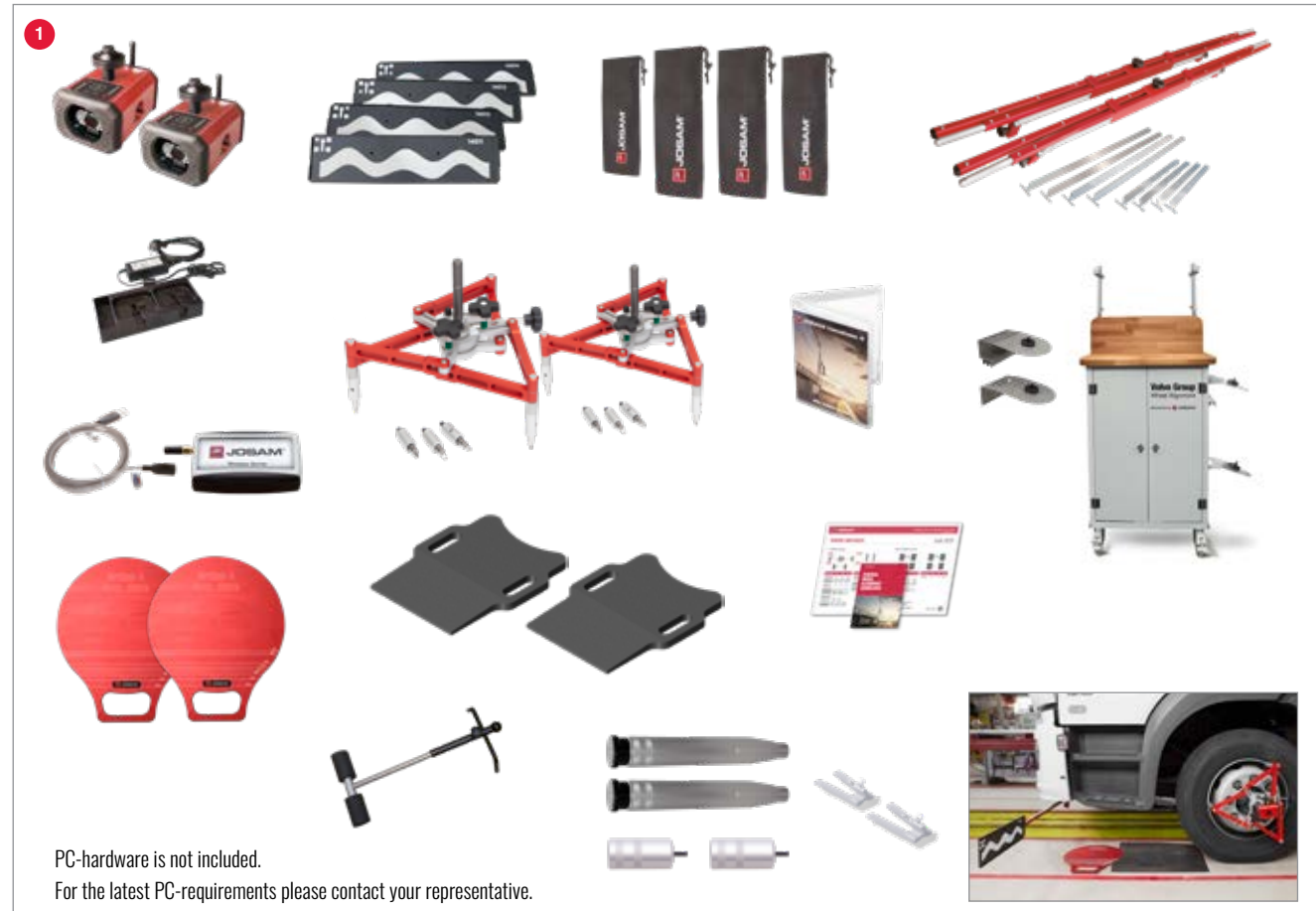




VOLVO BASIC K R A/21680

Basic kit for camera electronic wheel alignment (trucks)

Item #	Qty #	Ref #	Order #	Name
1	1	VOLVO BASIC K R A	21680	Basic set Cam-aligner



OPTIONS

CA TRAILER K/72104



Additional kit for trailer and semi-trailer

Item #	Qty #	Ref #	Order #	Name
1	1	CA TRAILER K	72104	Additional kit for trailer and semi-trailer



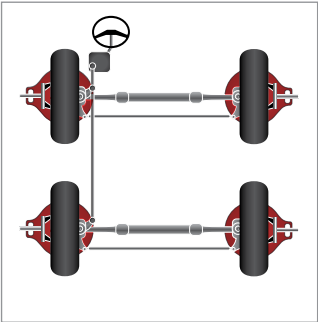
ALTERNATIVE 1

CA TWIN ALU K/21679

Additional kit for twin steer



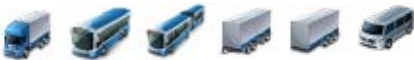
Item #	Qty #	Ref #	Order #	Name
1	1	CA TWIN ALU K	21679	Additional kit for twin steer



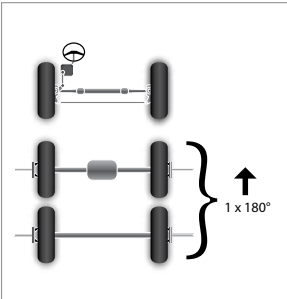
ALTERNATIVE 2

CA MULTI K/72108

Additional kit for multi axle roll

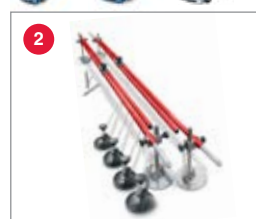
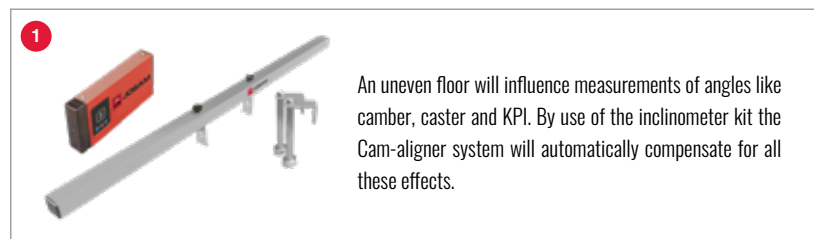


Item #	Qty #	Ref #	Order #	Name
1	1	CA MULTI K	72108	Additional kit for multi axle roll



CAM-ALIGNER, ACCESSORIES

Item #	Qty #	Ref nr	Order #	Name
1	1	CA ANGLE K A	75661	Additional inclinometer kit
2	1	CA BUS K	72244	Additional kit for buses and vans
3	1	CA ALU K	72103	Additional kit for aluminium rims
4	2*	AM268 A	13762	Non-friction plate Ø 400 mm
5	2*	JT295 A	14478	Turntable with non-friction plate
6	6/12*	CA1034	72034	Extension leg for spider wheel adapter 22.5–25.5"
7	2*	JT753	21022	Drive-on ramps



Additional front adapters

Make	JT734 15876	AM1622 10360	AM1854 15167	JT733 15875	JT73305 16355	AM1780 10439	AM1862 15767
							
Volvo FE	(1 pc*)	2 pcs	—	—	—	—	—
Volvo FH (To 2011)	—	—	—	—	—	2 pcs	—
Volvo FH (From 2012)	—	—	2 pcs	—	—	—	—
Volvo FL	—	—	—	1 pc	(1 pc*)	—	—
Volvo FM (To 2011)	—	—	—	—	—	2 pcs	—
Volvo FM (From 2012)	—	—	2 pcs	—	—	—	—
Volvo FMX	—	—	2 pcs	—	—	—	—
Renault D narrow	1 pc	2 pcs	—	—	—	—	—
Renault D wide/C	—	—	—	1 pc	1 pc	—	—
Renault K	—	—	—	1 pc	—	—	—
Renault Premium Euro 6	—	—	—	—	—	—	2 pcs
Renault T & T-HIGH	—	—	2 pcs	—	—	—	—

* Only needed when thread is missing



AM1895/21363

Front adapter extender, 100 mm

Item #	Qty #	Ref #	Order #	Name
1	1	AM1895	21363	Front adapter extender, 100 mm



Fitting adapters

AM1622 10360	AM1780 10439	AM1790 10444	AM1854 15167	AM1861 15658	AM1862 15767	AM1891 21202	AM1892 21292
							

CA 2011 K R/21031

Electronic wheel alignment, upgrade from Laser AM -> Cam-aligner

Item #	Qty #	Ref #	Order #	Name
1	1	CA 2011 K R	21031	Cam-aligner upgrade kit for JOSAM laser AM

1

LASER AM

CAM-ALIGNER

PC-hardware is not included. For the latest PC-requirements please contact your representative.

CA 2012 K R/21032

Electronic wheel alignment, upgrade from Truckaligner I & II -> Cam-aligner

Item #	Qty #	Ref #	Order #	Name
1	1	CA 2012 K R	21032	Cam-aligner upgrade kit for JOSAM truckaligner I/II

1

TRUCKALIGNER I/II

CAM-ALIGNER

PC-hardware is not included. For the latest PC-requirements please contact your representative.

75675

Upgrade your TruckCam system with new JOSAM software

Item #	Qty #	Ref #	Order #	Name
1	1	75675	75675	Software upgrade



Requires TruckCam camera sensors TC-256 or TC-268.
Upgrade is mandatory for static ADAS calibration.

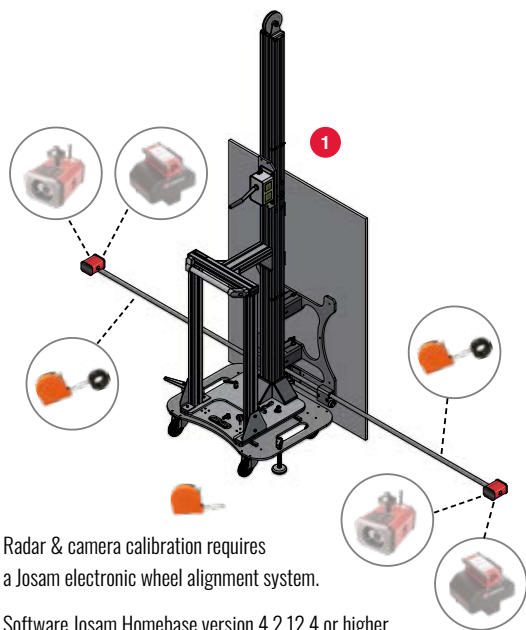


ADAS CALIBRATION



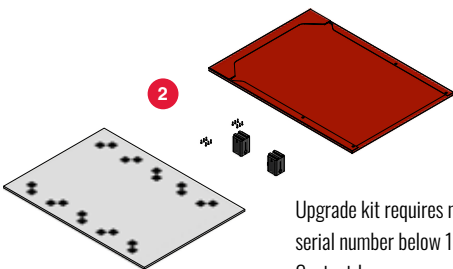
ADAS calibration stand for Cam-aligner and I-track II

Item #	Qty #	Ref #	Order #	Name
1	1	AM1874B	21440	Calibration stand for FLC/FLR and LPOS/FLS
2	1	AM1896	21442	Upgrade kit for calibration stand AM1874

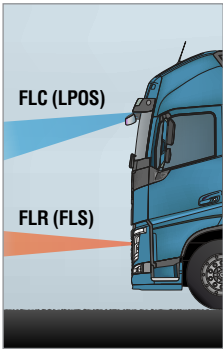


Radar & camera calibration requires
a Josam electronic wheel alignment system.

Software Josam Homebase version 4.2.12.4 or higher
is also required. To be used with Volvo Tech Tool.



Upgrade kit requires new software. AM1874 units with
serial number below 1025 need new base AM1881/16454.
Contact Josam support for further instructions.



Volvo Tech Tool screenshot

JOSAM I-TRACK II

Wheel alignment as it should be, advanced yet simple

Josam i-track II is able to measure every vehicle from vans and buses to heavy-duty trucks and trailers, alone or in combination. It is even able to align huge construction vehicles such as cranes. The wheel alignment procedure is guided by an animated software, minimizing all possible operator's mistakes.



I-TRACK II PREMIUM

I-track II premium allows you to measure a truck with up to five axles (three steered and two rigid), or a combined vehicle with up to six axles, with the base kit.

Universal magnetic wheel adapters are quickly attached to the wheel nuts, thereby easing operation on vehicles with aluminum rims. With additional wheel adapters, even more axles can be measured.



I-TRACK II CLASSIC

I-track II classic allows you to measure a truck or combined vehicle with up to five axles with the base kit.

Universal wheel adapters are attached to the wheel rims. With additional wheel adapters, even more axles can be measured.

Technical data

Description	Specification
Measuring range	
Toe	$\pm 25^\circ$
Camber	$-5^\circ \dots +10^\circ$
Caster	$\pm 20^\circ$
KPI	$\pm 20^\circ$
Max. turn	60°
Measuring accuracy	
Toe	$\pm 0.25 \text{ mm/m}^*$
Camber	$\pm 3 \text{ min}^*$
Operational time	12 h
Charging time	5 h

* For each measuring head

Note: To fulfill the Volvo Group demand to use the centerline as reference during wheel alignment, either centerline tool JT745 or MOBILITY KIT CLASSIC should be added to the kits 21037 or 21039. See accessories on page 15.

Item #	Qty #	Ref #	Order #	Name
1	1	WA ITRACK PREMIUM II R	21037	Basic kit I-track II premium



When ordering the I-track II premium kit, two additional wheel adapters JT732-2 are provided free of charge (10+2).

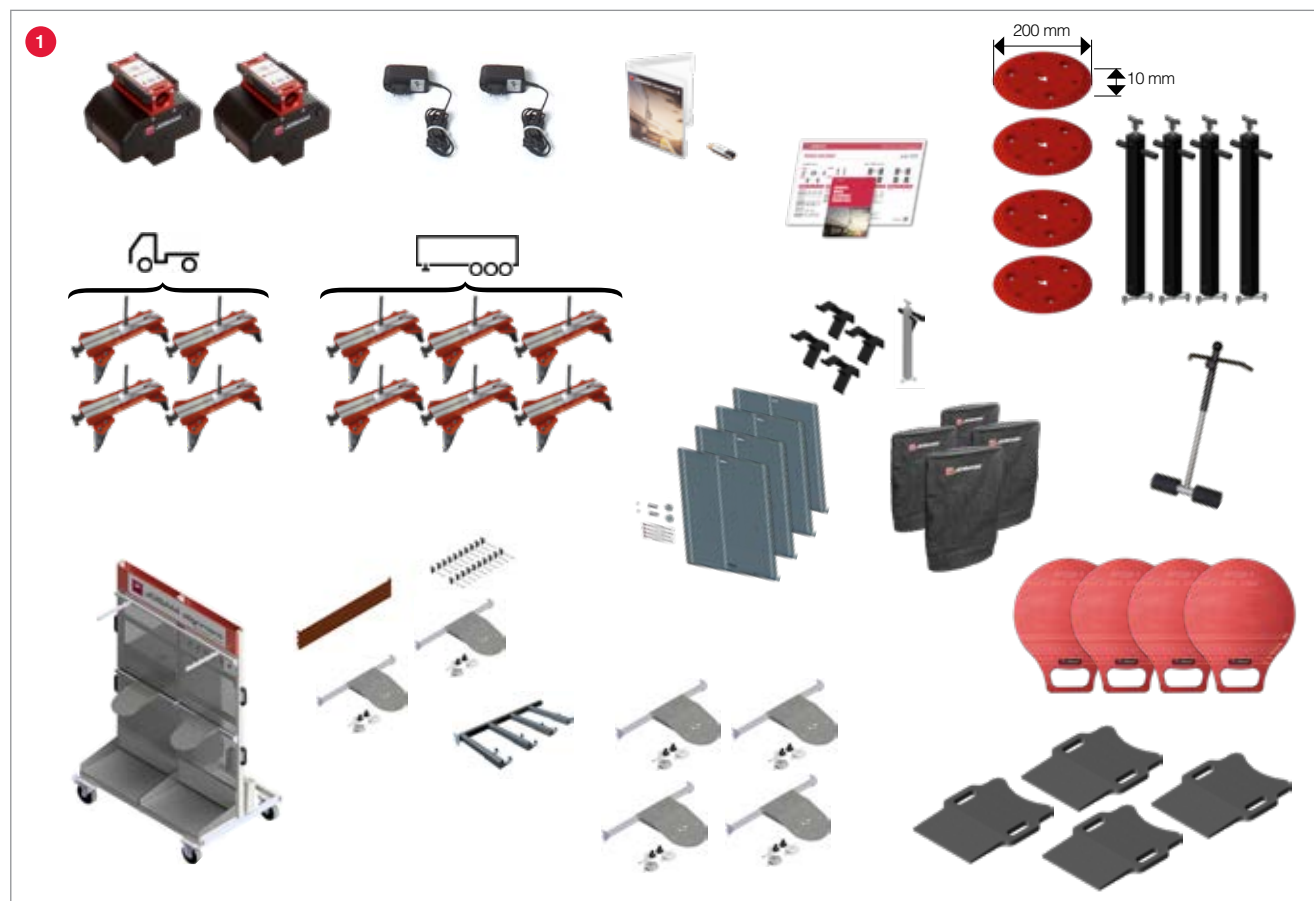


WA ITRACK CLASSIC II R/21039



Electronic wheel alignment and diagnostic tool
(trucks, buses and combined vehicles)

Item #	Qty #	Ref #	Order #	Name
1	1	WA ITRACK CLASSIC II R	21039	Basic kit I-track II classic

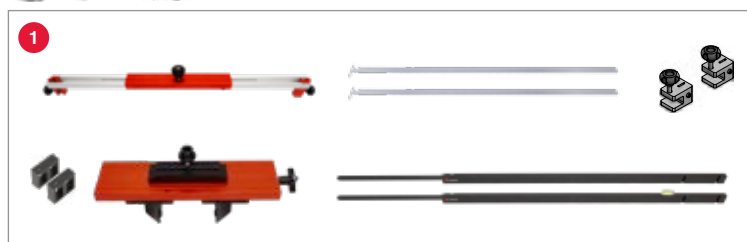


I-TRACK II, OPTIONS AND ACCESSORIES

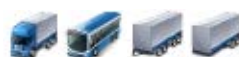
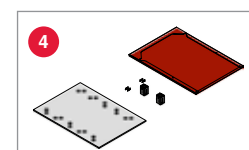
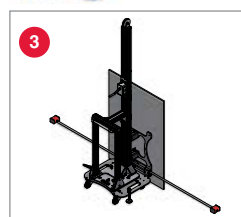
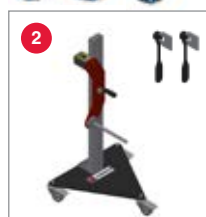
Item #	Qty #	Ref nr	Order #	Name
1	1	JT759	21376	Frame reference kit for trailer and semi-trailer
2	1	JT745	16513	Additional kit for trailer/centre line
3	1	AM1874 B	21440	ADAS calibration stand (see page 11)
4	1	AM1896	21442	Upgrade kit ADAS calibration (see page 11)
5	1	MOBILITY KIT CLASSIC	16522	Additional kit for (semi-)trailers
6	2*	JT732-1	16476	Magnet wheel adapter, short
7	2*	JT732-2	16477	Magnet wheel adapter, long
8	2*	21084	21084	Pair of wheel adapters for light commercial vehicles/vans
9	2*	JT636 B	15896	Universal wheel adapter 16-24"



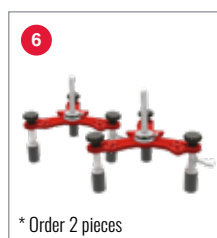
To efficiently measure combined vehicles, trailers and semi-trailers in a rolling sequence



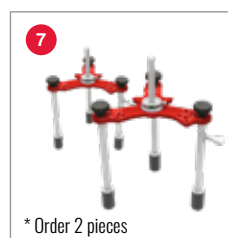
For centerline reference



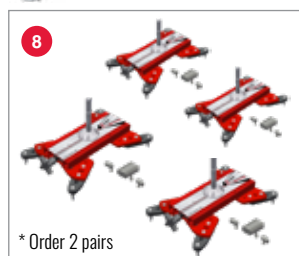
For centerline reference and trailer/semi-trailer measurement



* Order 2 pieces



* Order 2 pieces



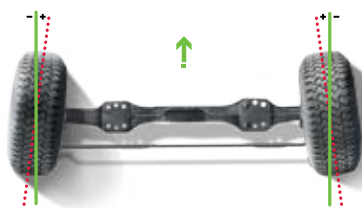
* Order 2 pairs



* Order 2 pieces



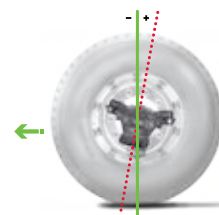
THE VOLVO WHEEL ALIGNMENT SYSTEMS CAN MEASURE THESE WHEEL ANGLES:



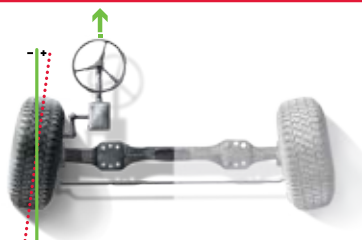
Toe



Camber



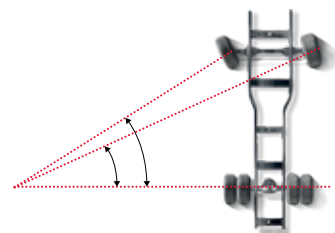
Caster



Steering gear middle position



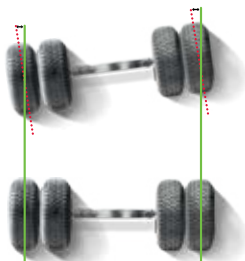
KPI



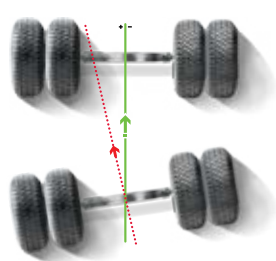
Toe-out on turn



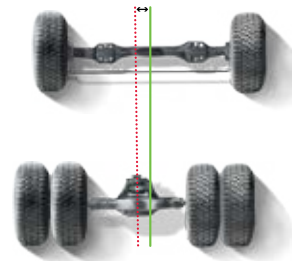
Maximum turn



Parallelism



Out of square



Offset

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