JOSAM

laser AM

Alignment Measuring systems for heavy-duty vehicles

The most reliable alignment system for wheel, axle and frame measurement on trucks, coaches, trailers, semi-trailers and all other heavy-duty vehicles

- A system which can also measure chassis frames -

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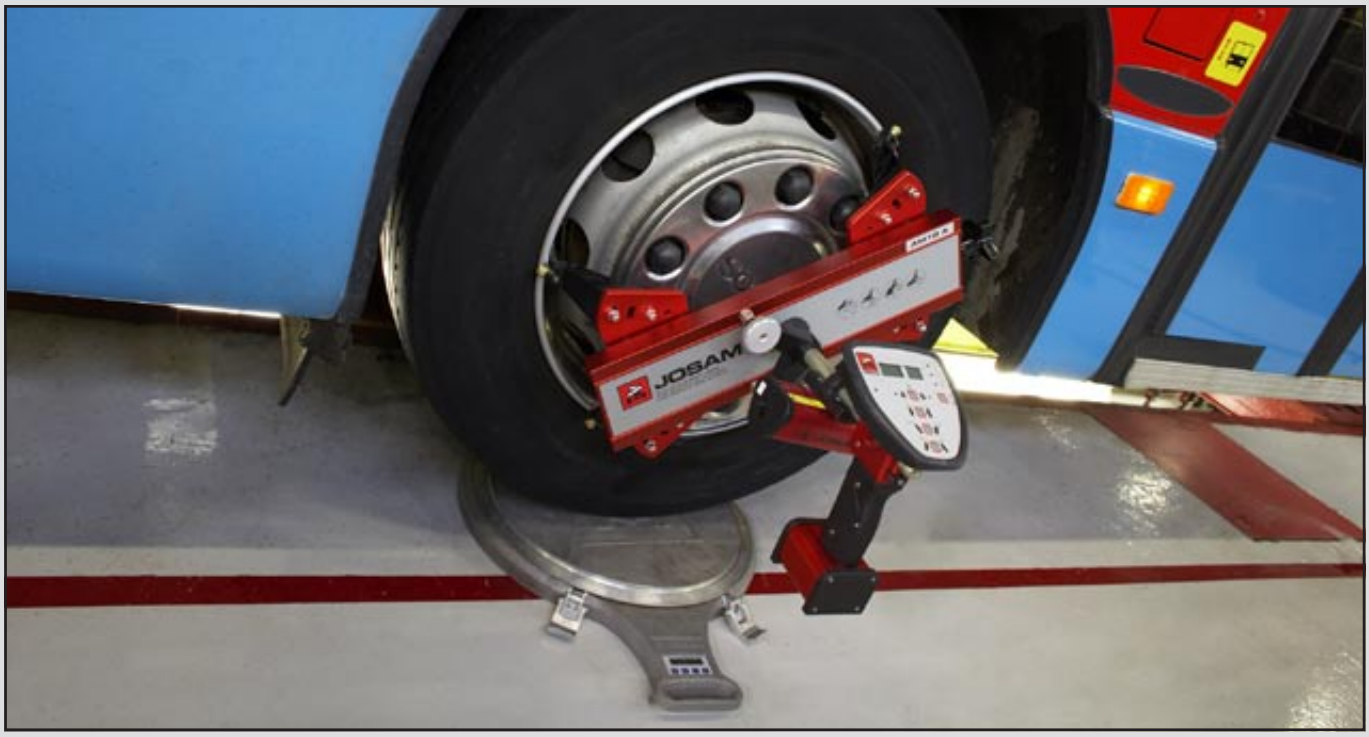


Accurate measuring system for wheels, axles and frames

When the driver steers the truck straight ahead, he/she assumes that the wheels and chassis roll straight ahead.

The driver controls the front wheels and decides on their direction. But the rest of the wheels can be rolling in another direction if the axles are not correctly positioned in relation to the longitudinal center line of the truck or if the axles are bent. It need not be a big displacement of the axle to have a very detrimental effect.

If, for example, **one wheel rolls 5 mm per meter to the right and the other wheel rolls 5 mm per meter to the left, the wheels will diverge from each other 10 meters per kilometer.**

This means that the truck rolls with resistance, which increases tire wear and fuel consumption. So it costs money driving around with faulty wheel geometry and axle positions. It is especially important for traffic safety that trucks with trailers have parallel rolling wheels. Everyone who has driven behind a truck or bus knows that very often they take up more room than the maximum allowed vehicle width.

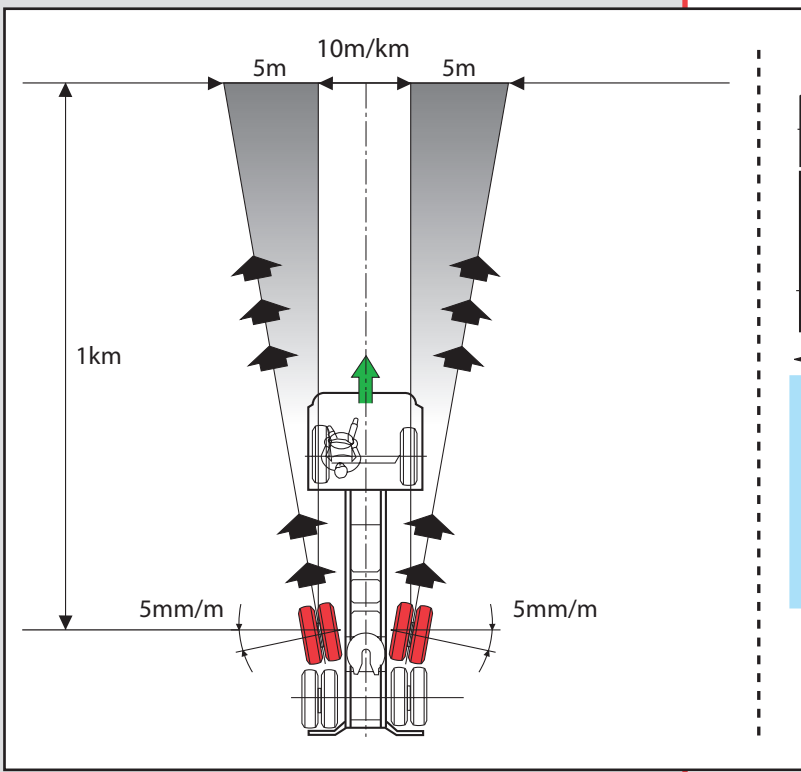
The Josam method is a way to increase traffic safety and driving economy. It is THE system for reliably measuring axle positions and for wheel alignment. All the wheel angles can be simply and easily checked.

Measurement and adjustment with **JOSAM laser AM** results in a balanced carriage where wheels, axles and chassis are rolling in the same direction.

For the workshop, this system is the perfect tool for expanded level of service. It is easy to use, calibrate and maintain. The alignment process is also speeded up.

The results are **accurate,** with **repeatability** and **reproducability**.

Moreover, any frame distortion can be diagnosed.



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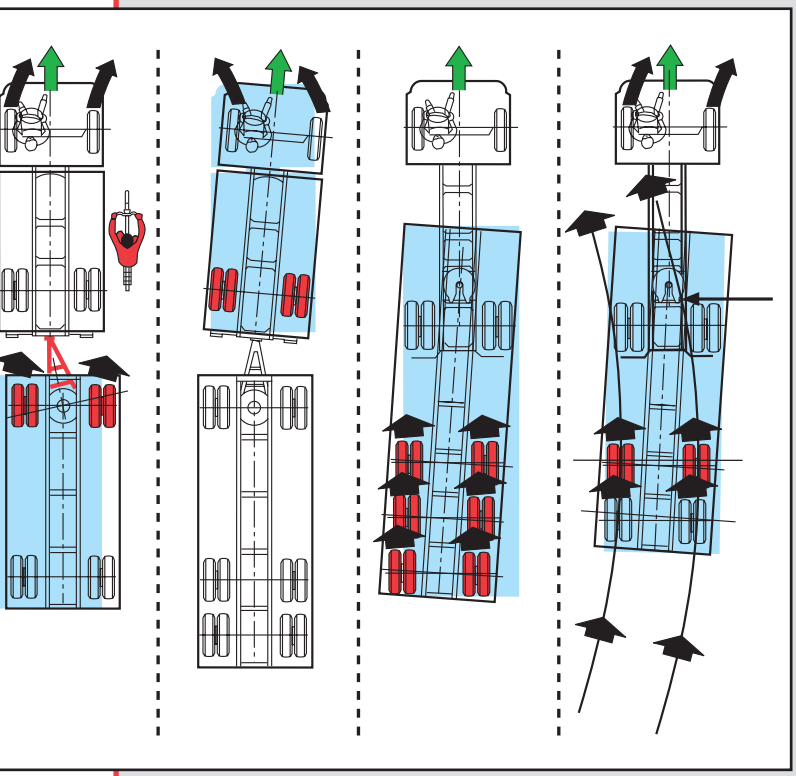
A set of JOSAM laser AM equipment for wheel, axle and frame measuring. The kit can also be equipped with our electronic wheel alignment gauge and PC-software for easy calculation and printout.

Measuring camber

Two gauges are available for the camber, caster and KPI-measurements: The electronic or the analog. Both are attached to the wheel adapter spindle. The camber result is read on the display of the former and on the outer scale of the latter.

Diode laser and battery charger. The Ni-cad batteries provide up to 50 hours of continuous use.

Before measuring wheel angles, the play detectors are used to check for worn parts.



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Measuring caster, TOOT and max. turn

By means of the turn angle gauges or electronic turntables, one can position the wheel to 20° inner and outer turn when measuring.

The caster value is read on the display of the electronic gauge and on the inner scale of the analog one. The TOOT (Toe Out On Turns) is measured while turning.

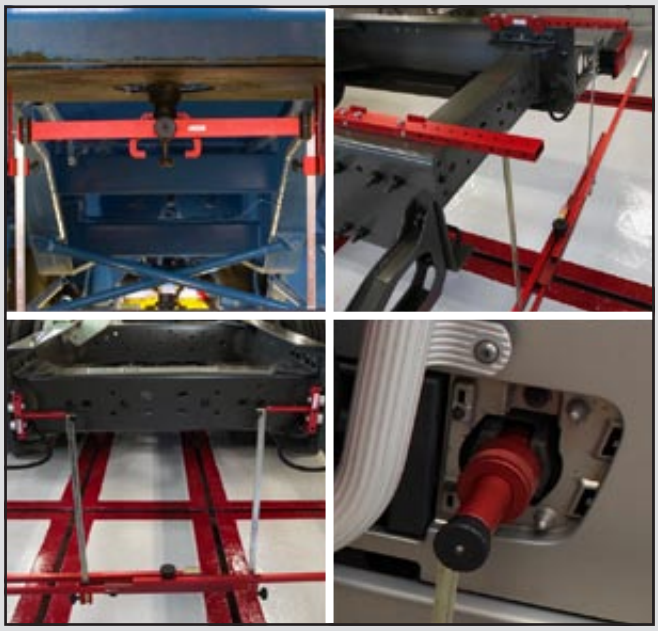
The max. turn measurement is easily taken by means of the turn angle gauge or the electronic turntables.

Measuring KPI

When measuring KPI, the wheels should be locked and turned 20° inwards and outwards with the use of our turn angle gauges or electronic turntables. The KPI-value is read on the display of the electronic gauge and on the inner scale of the analog one.

Our new light-weight electronic turntable shows the exact turn in digits.

The latest electronic wheel alignment gauge speeds up this process considerably.



Available with the system are various adapters and brackets which can easily provide extensions to the vehicle.

The non-friction plate makes it easier to move the wheels for the toe adjustment and adjust double steering front axles.

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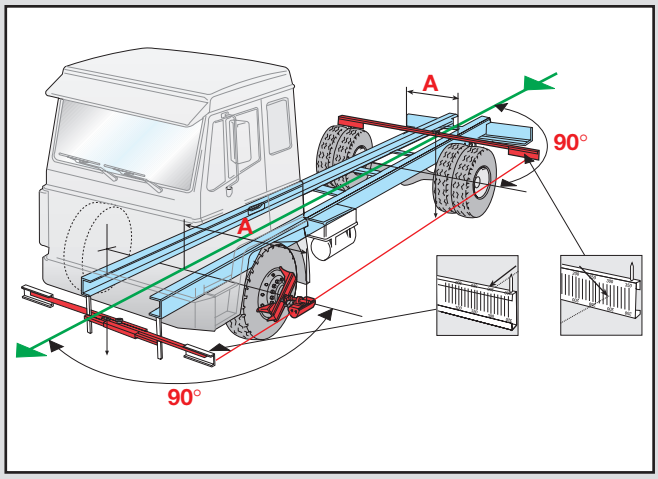
How the measuring system works



The JOSAM method for measuring axle positions shows accurately the rolling direction of the wheels in relation to the true geometric center line of the vehicle. This is done by means of a laser beam from a projector fixed to the wheel rim. The beam is projected onto scales at both ends of the truck. The scales are fixed on self-centering frame gauges which make it possible to line-up the center line at the side of the truck.

When the laser beam shows the same value on both scales it means that the wheel rolls straight ahead, thus parallel to the longitudinal center line.

The laser projector is fixed onto a universal wheel adapter, which is adjustable for different sized rims. The adapter on which the laser is fixed can be adjusted to eliminate the deformation of the rim. The adjustment compensates for run-out of the wheel rim.

Note that even the fact that a rim is severely damaged does not influence the attainment of very exact measuring results. Run-out of the wheel is compensated for with the adjustment knobs on the adapter.

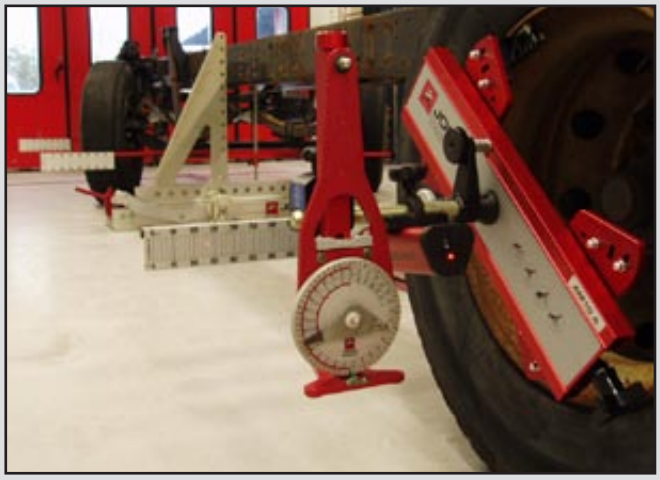
Calibrating and servicing the measuring system is fast and simple.

Toe measurement and PC software

When the laser is aimed at the front scale, the indicated value is taken and recorded. The laser is then aimed at the rear scale. Any difference between the two values indicates the deviation of the wheel from the correct rolling direction. The deviation is given in mm/m.

Our PC software JOSAM communicator calculates and depicts this directly in your PC.

A new feature for the JOSAM communicator is that it can now be used with a so-called ”Pocket PC”. This means that the operator can register and calculate the measurements taken around the vehicle and then load in the measurements over to a conventional PC. This is a perfect tool for those of you who are on the move or who do not have easy access to a PC.



Frame measurement

The JOSAM laser AM can easily be configured to measure chassis frames. This is possible with additional frame gauges, a supplementary software or special report sheets. A frame check is part of every alignment procedure.

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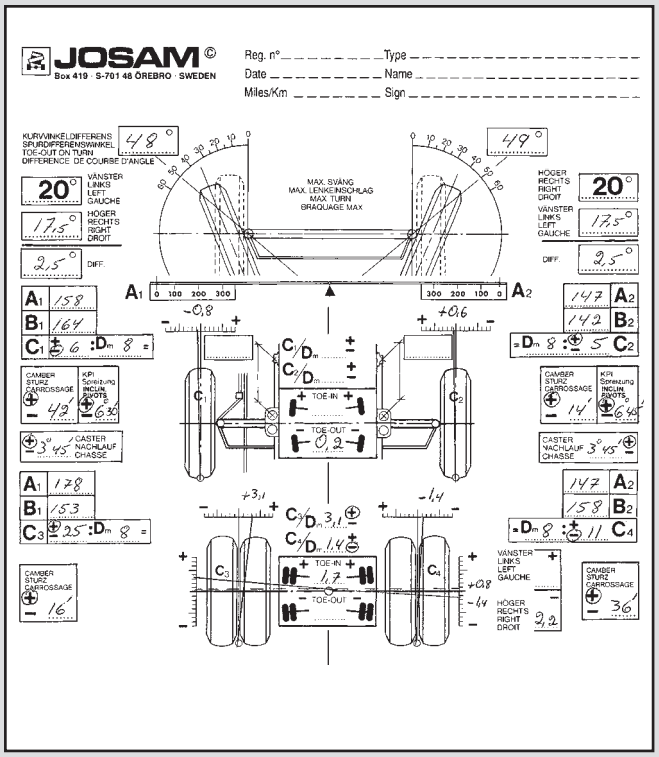

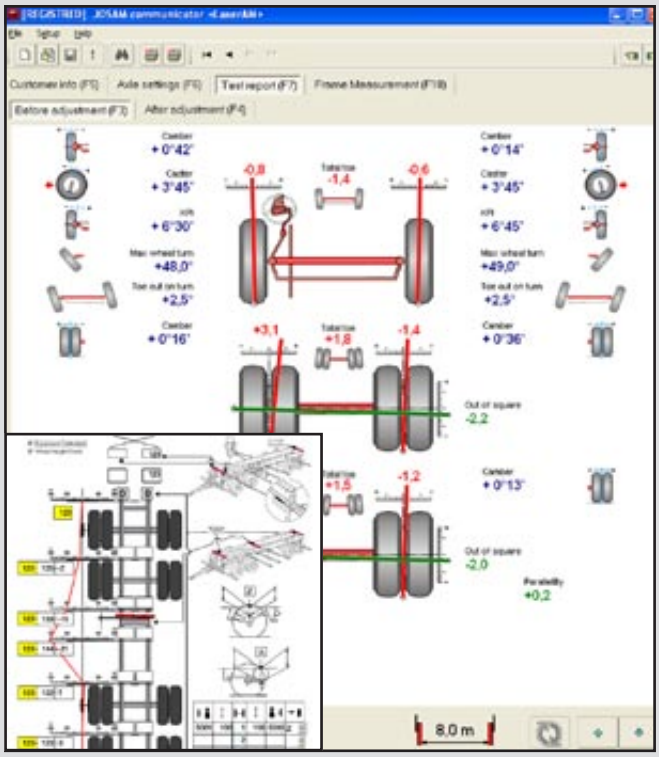

Report sheets

Included in the JOSAM laser alignment measuring system are test report sheets on which the angles for toe-in, toe-out, camber, caster and KPI can be noted as well as the toe-out on turn and the maximum turn. On vehicles with twin steering front axles it is of the utmost importance to note the deviation of the parallel axles between pairs of wheels and to adjust the setting.

On JOSAM's test report sheets it is also possible to indicate the displacement of fixed axles. Between two or more axles the non-parallelism can be indicated, which must then be adjusted because otherwise the vehicle will not drive straight ahead. Axles which are out of sqaure cause a lot of wear, not only to the wheels of these axles but also to the rest of the wheels on the vehicle.

Software for PC/Pocket PC

These reports are now offered as a Windows application and are suitable for use in your PC. This program, JOSAM communicator, is designed for Windows and makes it easier for you to calculate and store the test results when measuring wheels and angles.

The program functions with a database where measurements, customer information and comments can be entered, stored and printed out. As all data is stored in a database, quality control can be maintained at a professional level.

JOSAM communicator is delivered on CD and is available in several languages.

As the system can also measure frames, there is a new option for frame measurement included in the software.

Representative:

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