



JOSAM laser AM

Alignment measuring system
for heavy-duty vehicles





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Accurate measuring system for wheels, axles and frames

JOSAM laser AM 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.

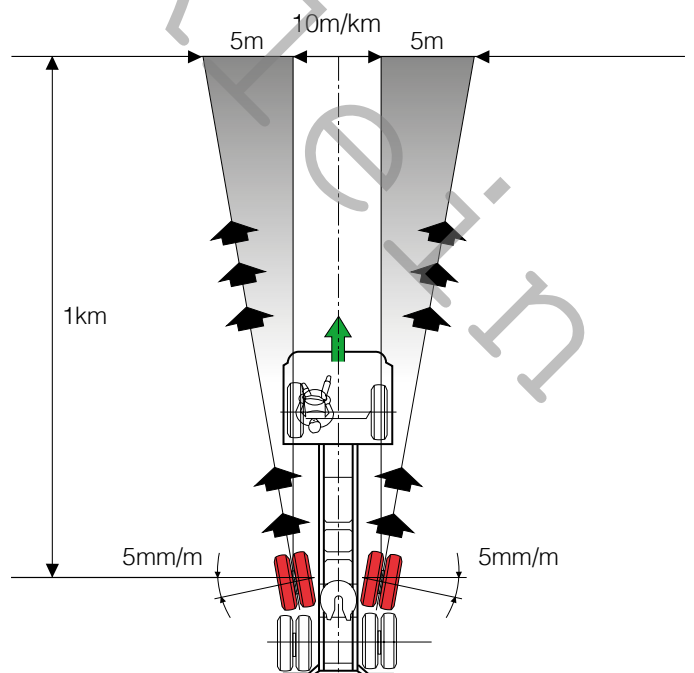
Measurement and adjustment with JOSAM laser AM results in a balanced carriage where wheels, axles and chassis are rolling in the same direction. For the workshop, this system is the perfect tool for expanded level of service. It is easy to use, calibrate and maintain. The alignment process is also speeded up. The results are accurate and with good repeatability. Moreover, any frame distortion can be diagnosed.

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. Even a small axle displacement can cause a noticeable 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 incorrect wheel geometry and axle positions. It is especially important for traffic safety that trucks with trailers have parallel rolling wheels.





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Measuring toe

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 Homebase calculates and displays this directly in your PC.

Measuring camber, caster, TOOT, max. turn and KPI

Camber is measured directly with the angle gauge. With the turn angle gauges or turntables, the wheel can be positioned to 20° inner and outer turn for correct measuring of caster and TOOT. The max. turn measurement is easily measured with the turn angle gauge or the turntables.

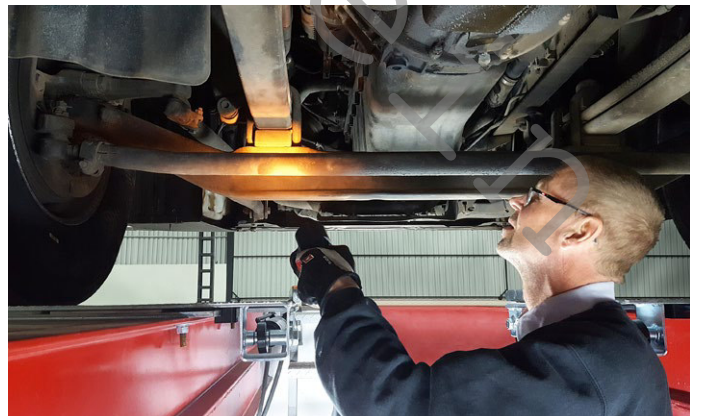
When measuring KPI, the wheels should be locked and turned 20° inwards and outwards with the use of our turn angle gauges or turntables.



The equipment is stored on wall panels (2,430x1,675 mm) or on a movable trolley.



Diode laser and charger in case. The Ni-Mh batteries provide up to 50 hours of continuous use.



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



This is how JOSAM laser AM works

JOSAM laser AM for measuring axle positions shows accurately the rolling direction of the wheels in relation to the center line of the vehicle. This is done with a laser beam from a projector fixed to the wheel rim. The beam is projected onto scales at both ends 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 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. Calibrating and servicing the measuring system is fast and simple.

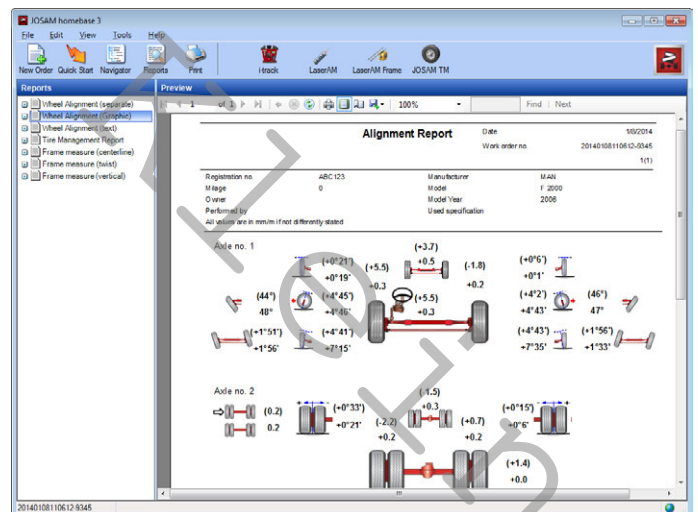
PC software

The software platform for Josam's wheel alignment systems, JOSAM homebase, has a Laser AM plugin. This helps the operator to calculate and store the wheel angles.

If an adjustment has been made, the results are presented with values before and after, together with symbols for the different wheel angles.



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.



Screenshot from the Laser AM plugin in the Homebase software platform. The report sheet can be printed or saved as a PDF.

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