

truckCam™

MERCEDES-BENZ WORKSHOPS

CAMERA WHEEL ALIGNMENT SYSTEM



GENERAL INTRODUCTION

THE DIGITAL TruckCam Camera Wheel Alignment System is one of the most advanced systems on the world market. With the integrated gyro and electronic inclinometers, precise and accurate measurements are guaranteed.

THE SYSTEM is designed for measuring all wheel angles, including parallelism between axles, on commercial (heavy duty) vehicles, such as trucks, trailers, buses and vans.

AS THE CAMERAS work with light only in the infrared spectrum, sunlight or indoor light have no influence which allows the system to work in every light condition.

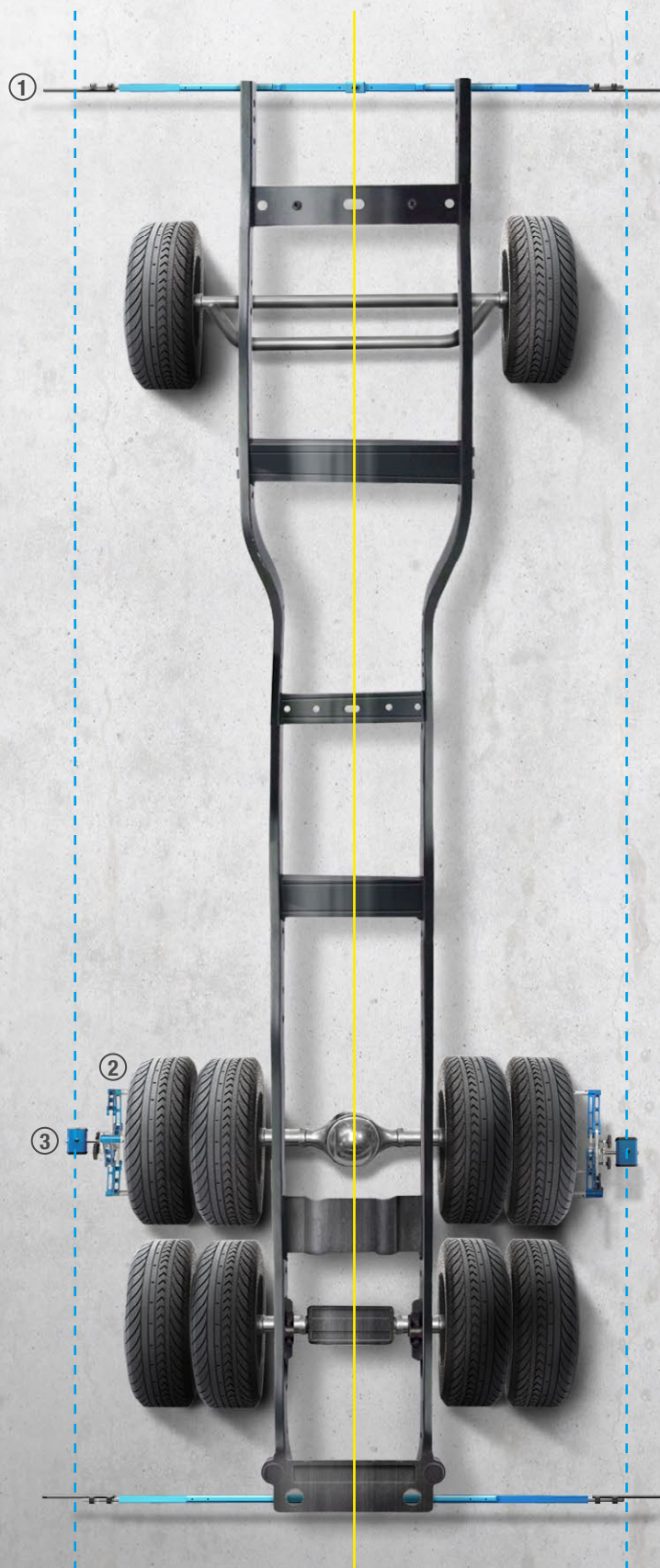
With the additional Inclinometer Unit the system is able to compensate for any influences on measurement from ground and/or tyres.

THE SYSTEM uses wireless technology for transmitting data between the measurement units and the computer.

The computer program guides the user through the measurement process and prints out measurement reports before and after alignment.



MEASUREMENT PRINCIPLE



- ① TC-121 Frame Gauge with TC-233 Reflective Targets
- ② TC-175 Wheel Adapter Spider
- ③ TC-256 Camera sensor



THE TRUCKCAM Camera Wheel Alignment System uses the chassis centerline principle to determine the position of axles and individual wheels in relation to the vehicle centerline.

THE CENTERLINE of the vehicle is determined by the self centering frame gauges hanged in the front and rear of the chassis or body.

The reflective targets are placed on an equal distance from this centerline, creating an imaginary line on each side of the vehicle, parallel to the vehicle centerline.

THE CAMERA measures distance and position in relation to the front and rear targets.

Thanks to this the system software is able to calculate all wheel angles for that particular wheel and axle in relation to the centerline, for example total toe, individual toe, out of square and parallelism between axles.

WHEN MEASURING caster, KPI and turn angles, the system uses the position of the camera relative to the targets in combination with the data given by the integrated gyroscope and inclinometers.

MEASURING DIFFERENT VEHICLE TYPES

THE TRUCKCAM CAMERA Wheel Alignment System with all its different adaptors and additions is able to measure every possible commercial (heavy duty) vehicle on the market.

FOR EXAMPLE, using the TC-126 Bus / Van adaptors to fit the frame gauges to the outside of the vehicle body simplifies measuring all kinds of vehicles which have no internal frame structure like buses and vans.

THE TRUCKCAM WHEEL Adaptor Spider fits all rim sizes from 14" to 24", and thus the system in combination with the TC-121 compact frame gauges is suitable for measuring light commercial vehicles like Sprinter, Vito and Viano, as the frame gauges can be altered in width.



Bus attached with TC-126 Bus and Van kit, TC-175 Wheel Adapter Spider and TC-256 Camera Sensor.



Truck equipped with
TC-121 Frame gauges, TC-155 Sliding Low Friction Plate and TC-411 Bumper Adapter.



Van with TC-121 Frame gauges, TC-175
Wheel Adapter Spider and TC-256 Camera sensor.



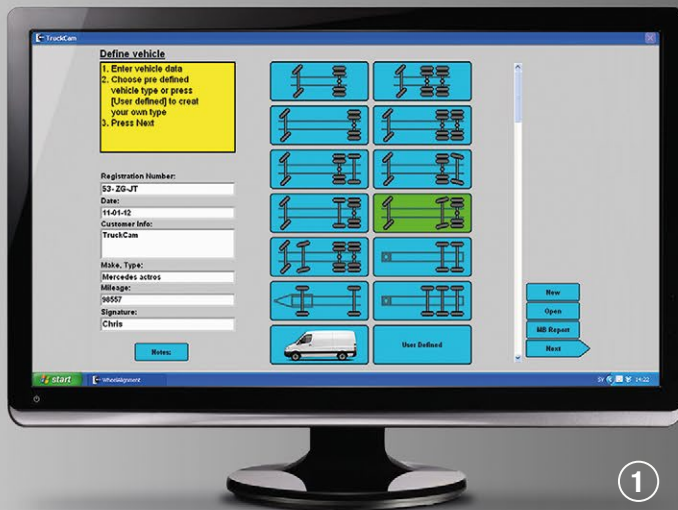
MEASURING CASTOR, KPI AND TURN ANGLES

MEASUREMENT OF CASTOR, KPI and Turn angles is based on a single continuous movement of the wheels, from straight ahead position to maximum left, via maximum right position 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 whole procedure can be carried out in a matter of minutes. During this measurement the TruckCam Inclinometer Unit is very important, as it is able to compensate for horizontal level of the measured axle.

DIAGNOSE MEASUREMENT



FOR A QUICK diagnosis of the vehicle, the TruckCam Camera Wheel Alignment System enables dynamic toe and camber measurements whilst in driving position, by using the unique TruckCam Rolling Method.

THIS METHOD can be used as an entry measurement in the workshop to determine if the vehicle needs to be adjusted.

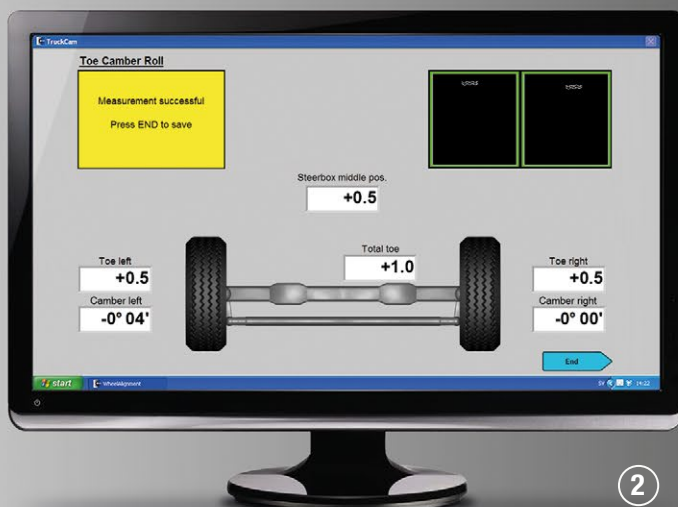


Figure ① shows screen to define vehicle. Choose from pre-defined configurations or configure your own.

Figure ② showing computer screen after diagnose measurement of the front axle.

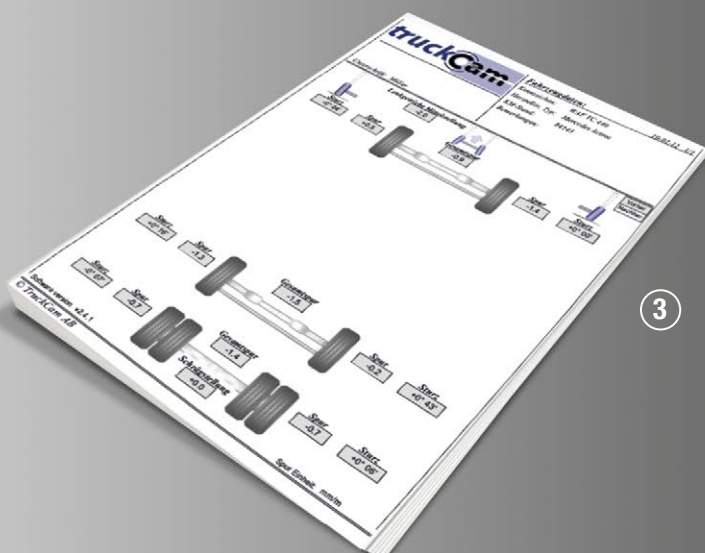


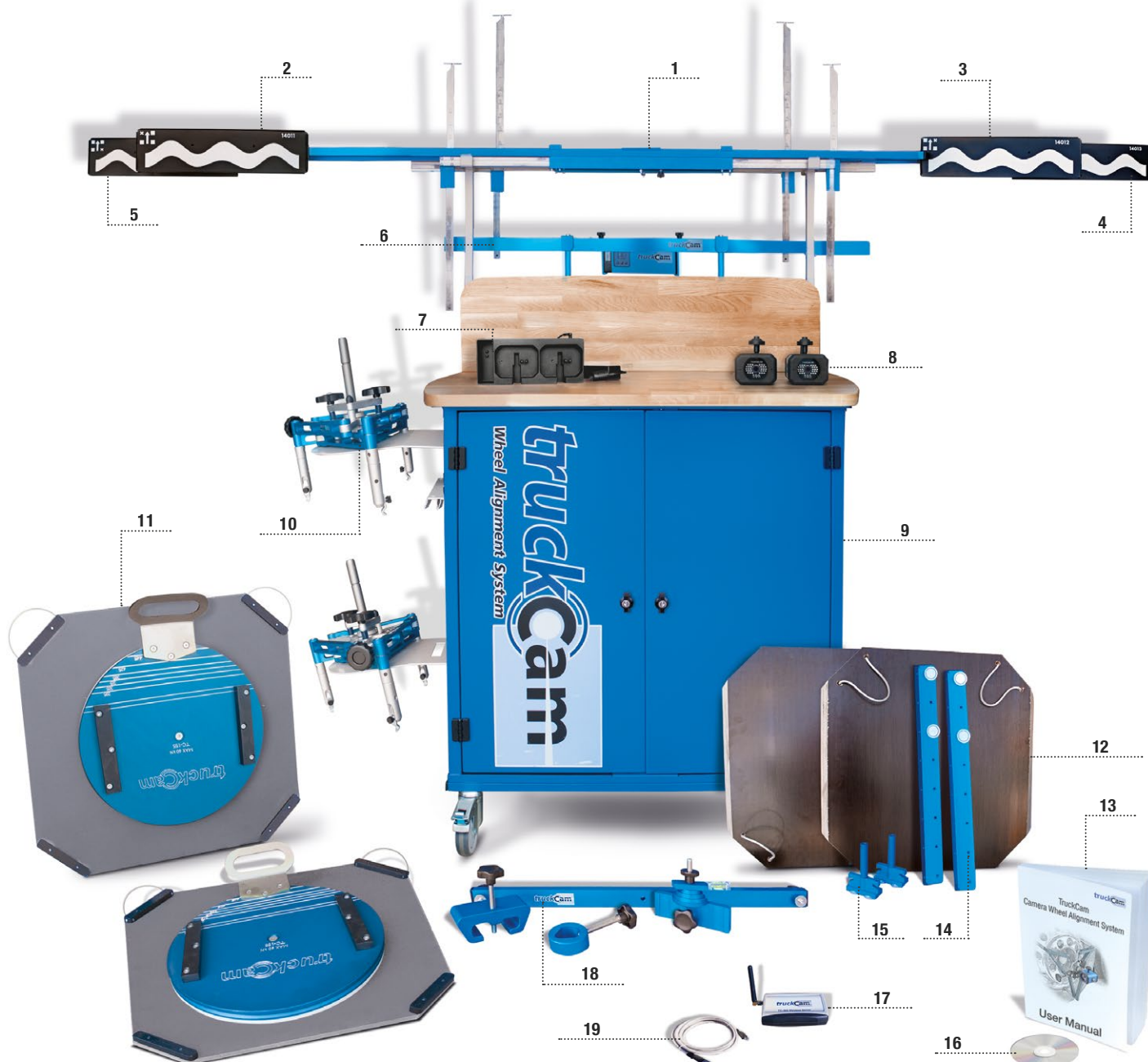
Figure ③ is an example of print-out measurement protocol.

TRUCKCAM PROFESSIONAL SYSTEM FOR MERCEDES-BENZ

TC-2044

-L - System with TC-801 Panasonic Toughbook and TC-803 Dell Printer

-P - System with TC-802 Dell PC, screen, mouse, keyboard and TC-803 Dell Printer



ITEM	PRODUCT ITEM	PRODUCT NR.	QTY
1.	Frame Gauge Compact w Hangers L=320 & L=620	TC-121	2
2.	Reflective Target FL	TC-233-10	1
3.	Reflective Target FR	TC-233-20	1
4.	Reflective Target RL	TC-233-30	1
5.	Reflective Target RR	TC-233-40	1
6.	Inclinometer Kit	TC-2010	1
7.	Charging Cradle	TC-395	1
8.	Camera Sensor	TC-256	2
9.	Cabinet for System Parts	TC-504	1
10.	Wheel Adapter Spider 12" - 24"	TC-175	2

ITEM	PRODUCT ITEM	PRODUCT NR.	QTY
11.	Sliding Low Friction Plate	TC-155	2
12.	Wooden plate for height compensation	12860	2
13.	User Manual for Camera Wheel Alignment System	19100	1
14.	Chassis Extender	TC-1026	2
15.	Magnet Adapter	TC-1029	2
16.	Wheel Alignment Software	TC-729	1
17.	Wireless Server	TC-305	1
18.	King Pin and Tow Bar Adapter Kit	TC-410	1
19.	USB Cable 2m	TC-361	1



ITEM	PRODUCT ITEM	PRODUCT NR.	QTY
1.	Wooden Plate for height compensation	12860	2
2.	Sliding low Friction Plate	TC-155	2
3.	Laser printer Dell	TC-803	1
4.	Laptop Panasonic Toughbook CF 19	TC-801	1
5.	Desktop PC Dell 22", Screen, Keyboard, Mouse	TC-802	1

ITEM	PRODUCT ITEM	PRODUCT NR.	QTY
6.	Bus and Van Kit	TC-126-MB	2
7.	Bumper Adapter, adjustable	TC-411	1
8.	Magnetic Wheel Adapter	TC-142	4
9.	Reference Block	TC-416	4
10.	Wheel Adapter Spider	TC-175	2



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