Easy Tread & Easy Cam

TREAD DEPTH MEASUREMENT AT THE VEHICLE RECEPTION – TYRE DIAGNOSIS WITH IDENTIFICATION OF THE REGISTRATION NUMBER

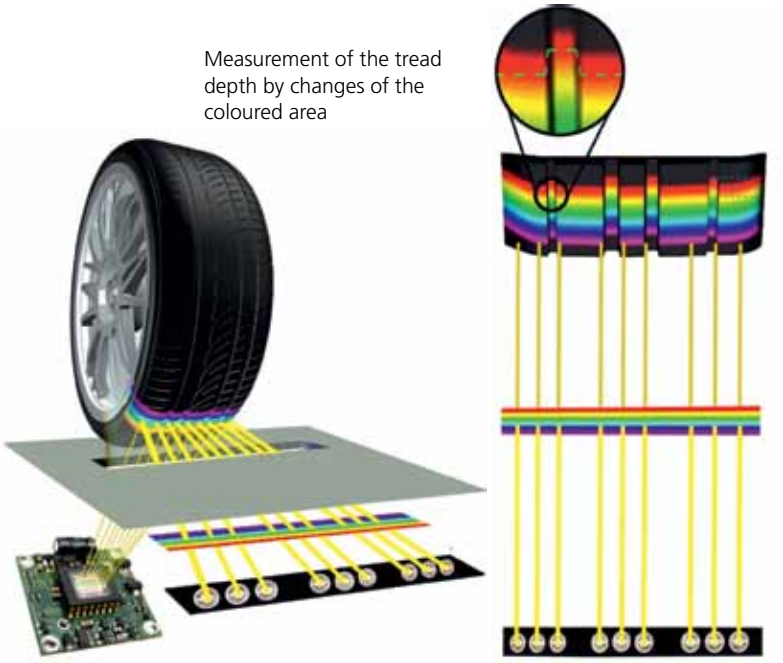
BEISSBARTH

Easy Tread: high-precision measurement of the tyre tread depth via CCL technology*

High precision thanks to light section technology

Light section method provides accurate results

The LED projection through a special transmission foil with coloured stripes (see below) onto the tyre is captured by two cameras and turned into a 3D cloud. Based on this cloud, changes concerning the position of the colours are translated into information concerning the tread height.



Measurement of the tread depth by changes of the coloured area

* With CCL (colour coded light) section technology, a precise CCCSSA-3D analysis (curved colour coded spatial spectrum analysis) is performed.

Advantages of CCL measurements*

- Top precision: 18 measurement lines with a width of 1.8 mm each allow a surface-based measurement at the maximum tyre contact area. In comparison: Laser projections use a measurement line with a width of 1 mm
- High resolution: Measurements with up to 2500 pixels. Other measurement methods often only use half the resolution
- 100 images per second
- Flicker-free: Unlike measurements with lasers, LED projection prevents any flickering – thus no gaps at the tread depth measurement
- In comparison with laser systems, CCL measurement* practically doesn't use any moving parts. **Easy Tread** is thus highly resistant to dust, vibrations, moisture or changing temperatures

Easy Tread vs. laser triangulation

Characteristics	Easy Tread (light section method)	Laser triangulation
Illumination	LED (multiple light sources)	Laser (a single light source)
Moving/mechanical parts	No	Yes
Sensitivity to dirt	Low**	High
Sensitivity to vibrations	Low	High
Service life	High (LED)	Low (laser)
Sensitivity to changing temperatures	Low	High (in case of high temperatures)
Health risks for the operating personnel (eyes)	No	Yes
Vehicle identification	Optical (camera)	External sensor
Drive-on in both directions	Yes	Yes / No (depending on version)

** Easy Tread: Multiple-point (LED) illumination reduces the risk of incorrect measurements caused by soiling or foreign matters (stones, leaves, etc.)

Easy Tread: quick measurement

Tyre diagnosis at the vehicle reception:
Easy Tread tread measurement with Easy Cam automatic identification of the registration number

All 4 tyres are measured when the vehicle is crossing

- Crossing speed speed: 8 km/h (maximum speed)
- The vehicle does not need to stop to get measured
- Sophisticated camera technology (accuracy: +/-0.25 mm)
- Thanks to the larger wheel contact area, the distinctive coloured CCL light section method is much more efficient than traditional laser methods
- Measurement of the tread depth on all of the 4 wheels within seconds
- In addition evaluation of wear patterns

Valuable data for tyre specialists

- Browser-based measurement results on smart TV, PC or tablet computer
- Clear display of tyre tread depth and wear information
- Integrated database for statistic evaluations
- (Optional) interface for workshop connectivity

Easy to install

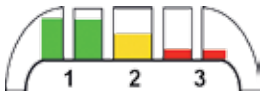
- No internet or compressed-air connection required
- Low installation height: just 85 mm from ground level (or optionally on ground level, see page 9)
- Robust structure for vehicles featuring up to 4 t (max. axial load)

Easy Tread and Easy Cam at the vehicle reception
In the shown example on a LTB 300 test bay, with Easy 3D+ wheel alignment, MLD 9000 digital headlight tester and DAS adjustment

NEW! Expanded tyre analysis

Precise recognition of tyre damages

Workshop information



Quick and neatly arranged:
Tread depth (mm) measured at 3 different zones:

- Left – centre – right.
- Decisive lowest value is always marked clearly:
  (in this case: 7.4 mm)

Red: Replace tyres!

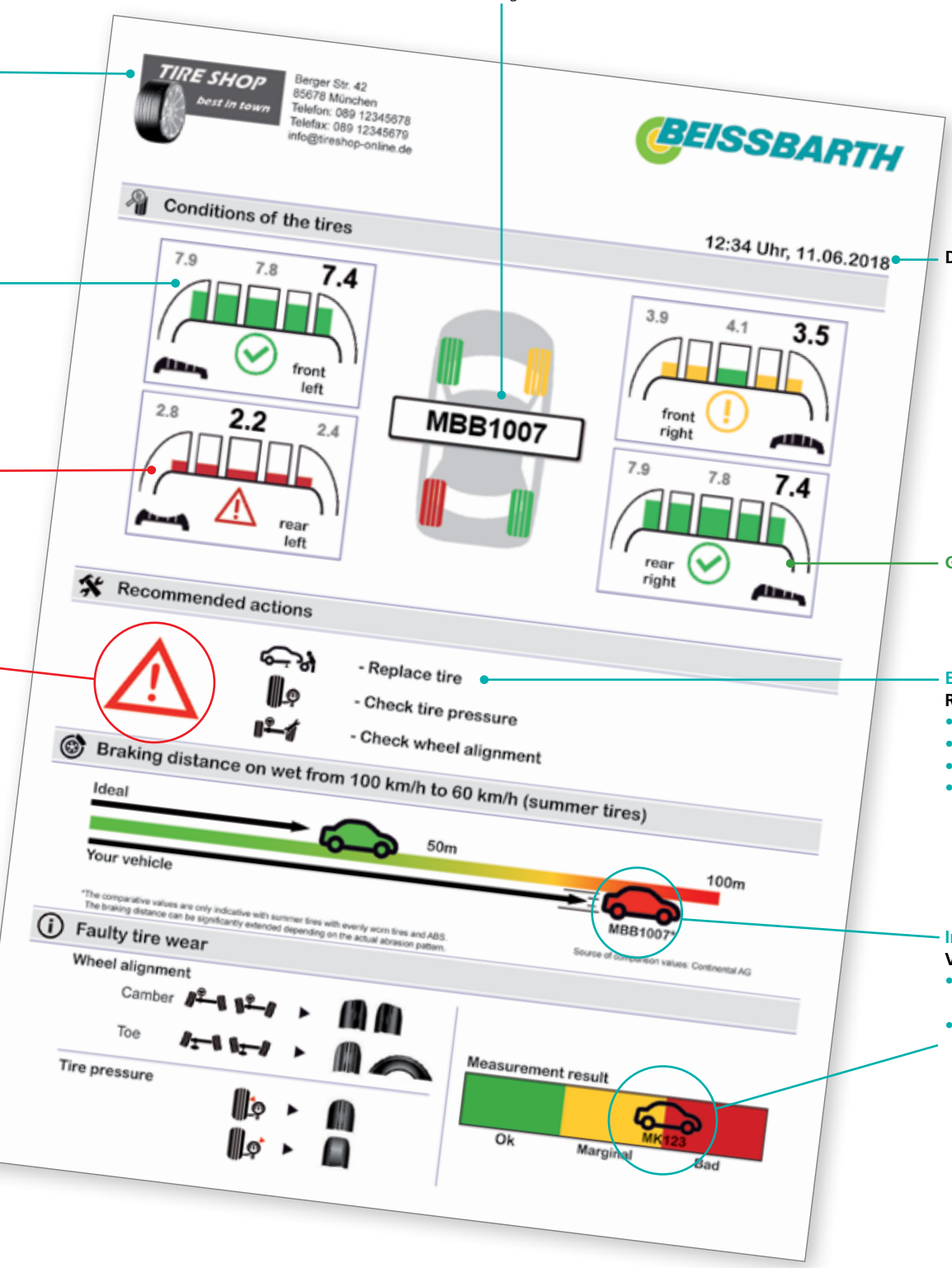
Key / typical wear patterns:

Normal

Air pressure too low
Air pressure too high

Incorrect camber

Easy Cam: Automatic identification of the vehicle registration number



Date and time of the test

Green: Tyres are OK

Easy and comprehensible:
Recommended action
- Adjust tyre pressure?
- Replace tyres?
- Sell tyres?
- Wheel alignment?

In a nutshell:
Vehicle status picture
- Influence of the current tyre condition on the brake path
- Overall evaluation of the vehicle safety

OCR software generates numerical values

Connection to Easy Tread via big or small cable tunnel

Infrared camera with independent fully automatic self timer, 3 FPS

Easy Cam: automatic identification of number plates when rolling over

ANPR camera (camera for automatic number plate recognition)

- Universal set-up for front and rear number plate identification
- Country and state identification
- Crossing speed of up to 8 km/h
- Data transfer to Easy Tread via LAN
- Simple installation and calibration
- Robust steel housing as roll-over protection (up to 4 t)
- CDC varnish protects against corrosion
- IP65 protection against dust and humidity

Easy Tread is also available as in-ground version

User interface
Intuitive and easily understood

Easily understood classification of the tyre condition based on the colours of a traffic light (red, yellow and green).

Integrated database function with evaluation possibilities for the creation of tyre statistics.
Beissbarth software solution protects customer data in accordance with GDPR

Easy Tread display solutions with browser-based display

Workshop computer with trolley (optional) for quick measurement thanks to direct access to customer data, measured values and central data storage including statistics and analysis

Customer-specific smart TV mounted onto the wall or a column

Transparent measurement results on the tablet computer This allows the workshop to recommend new tyres or a wheel alignment in case of doubt as an additional diagnosis.

Easy Tread: configuration with/without Easy Cam

Easy Tread

Illustration	Easy Tread (above ground)	Order number
	**Easy Tread** modules incl. drive-on ramps for above-ground installation (scope of delivery: measurement modules, drive-on ramps, LAN cable, main switch box, glass squeegee)	1 691 200 000

Illustration	Easy Tread (above ground, on working pit)	Order number
	**Easy Tread** Modules incl. drive-on ramps for above-ground installation on working pits (scope of delivery: switch, measurement modules, drive-on ramps, LAN cable, main switch box, glass squeegee)	1 691 200 001

Illustration	Easy Tread (in ground)	Order number
	**Easy Tread** Modules for in-ground installation (scope of delivery: measurement modules, LAN cable, main switch box, glass squeegee)	1 691 200 002
	**Foundation frame** Foundation frame to be cemented in with filling pieces	1 691 200 010
	**Centre cover** Easy Tread cover panel for in-ground version without ANPR camera	1 691 202 069

Easy Tread with Easy Cam

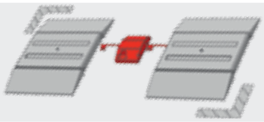
Illustration	Easy Tread with Easy Cam (above ground)	Order number
	**Easy Tread** modules incl. drive-on ramps for above-ground installation (scope of delivery: measurement modules, drive-on ramps, LAN cable, main switch box, glass squeegee)	1 691 200 000
	**Easy Cam** ANPR camera with housing for above-ground installation (scope of delivery: ANPR camera, housing, LAN cable)	1 691 200 008

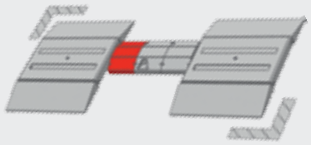
Illustration	Optional accessories Easy Tread with Easy Cam (above ground)	Order number
	**Cable tunnel** to be used as cable bridge for the gaps between teh ANPR camera housing and the Easy Tread modules (left and right) as well as roll-over protection for lateral cable outlets (scope of delivery comprises 1 piece. Cable tunnel can be ordered in the desired quantity)	1 691 201 023

Illustration	Easy Tread with Easy Cam (in ground)	Order number
	**Easy Tread** Modules for in-ground installation (scope of delivery: measurement modules, LAN cable, main switch box, glass squeegee)	1 691 200 002
	**Foundation frame** Foundation frame to be cemented in with filling pieces and ANPR camera socket	1 691 200 010
	**Easy Cam in-ground camera kit** ANPR camera with housing (in ground) and centre cover	1 691 200 009

Easy Tread: technical data

Technical data

Technical data	Easy Tread
Size in mm (H x W x D)	85 x 2245 x 1040
Max. tyre width	450 mm
Track width	1080 – 1820 mm
Max. speed	8 km/h
Max. axial load	4 t
Voltage supply	100 to 230 VAC, 50 – 60 Hz, 1 phase
Operating temperature / range of functionality	0 – 40 °C
Protection type of the measurement modules	IP65
Software languages	18

Accessories

Easy Tread accessories	Order number
Trolley (RAL 5015) with PC, monitor, mouse (without keyboard)	1 691 201 008
Colour printer	1 693 770 415
Desiccant (2 pieces)	1 691 201 005

Bosch Connected Repair
Easy, efficient, throughout the workshop

Smart connection – Bosch Connected Repair

- Bosch Connected Repair is a server-based software solution. The central communication platform eases and accelerates the processes on all connected devices.
- Both customer data* and vehicle measurement results can be accessed on all working bays as they are stored centrally. Connecting the workshop devices, the data once entered can be accessed at any time.

Bosch **Connected Repair**

*Use of customer data complies with GDPR

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