

Berghaus News

Traffic Technology

Light Innovation

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At a glance

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Fewer children involved in traffic accidents

According to the German Federal Statistical Office, in 2004, 37,285 children under the age of 15 were involved in road traffic accidents, that is 7.4% less than the year before. That means that the number of children involved in traffic accidents in Germany declined more than the number of all fatalities and injuries, which also decreased in 2004 by 4.9% to 445,968.

These and other results for the accident statistics in 2004 are contained in the brochure "Road Traffic Accidents 2004" which can be downloaded free of charge in the Federal Statistical Office shop under www.destatis.de/shop.

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Good training saves costs

What use is on-going further development in traffic signal technology if the service technician himself does not continue his training? Do your staff know all the functions of your portable signal systems? How do you deal with faults? Do you still outsource the work involved in drawing up signal time-tables?

For years we have offered our customers a very special service: we train your service staff so that they become "traffic light experts", providing you with the full range of possible uses for our traffic signal systems in all aspects of road traffic.

Our practical training course I explains among others the necessary know-how for drawing up traffic signal time-tables and how to implement these phase time-tables in your signal systems; we also provide easily understood instructions for effective troubleshooting with the signal systems on site. This course is particularly recommended for newcomers and for users of our portable "MPB" traffic signal series. Working on



the basis of the general know-how acquired in course I, we offer advanced technicians our training course II for junction control units. The course teaches the graphic aspects involved in drawing up the signal time-tables in an easy fashion with our "traffic light

time-table program", together with integration in the "EPB" control unit series. Take up our offer for training and use the form on page 2 of this Berghaus News! We'll make your technicians fit, and you can start saving straight away with your own service capabilities.

New sign stands made of concrete

The new sign stand made of precast concrete elements is extremely stable thanks to its large contact surface and high weight with small volume.

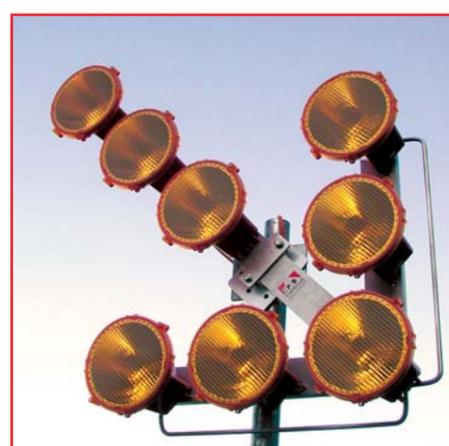
It is very easy to erect, because the concrete stand measuring 1200 x 450 x 60 mm and weighing 80 kg consists of just one module together with the receptacle for the shaft pipe. One system for all applications. Just three concrete elements on top of each other with a structural height of only 18 cm already fulfil the stability safety class up to K8. This is compared to other sign stands which are weighed down with recycled

footplates: up to eight footplates would be required to reach this class. Parallel to the test series by subsidiaries in the role of service provider, our customer service is conducting a customer survey and market analysis on this new system. Thanks to the high durability materials, it is also ideal in areas requiring extensive security from manipulation to the sign stands.



Illuminated arrow L8-2 AL and illuminated arrow L15 continue their advance

Not only the authorities have welcomed our new portable illuminated arrow L 8-2 AL on aluminium frame. Weighing only 9 kg, it is a real light-weight in its class. Similarly, the new aluminium-based structure has also brought considerable reductions in price.



Safety which is quickly and easily erected, at a low price for everyone. The Guidelines for Safeguarding Road Works (RSA) in 1995 already standardised throughout Germany the warning equipment for working and safety vehicles. In addition to the red, white and red warning signs, the illuminated arrow L15 (picture right) fitted to the vehicle is not part of the vehicle lighting system, as frequently incorrectly presumed, but consists of "additional safety equipment" according to the RSA (Part A 7.1 [7e]).

It can be used on all working and safety vehicles marked according to § 35 of the road traffic regulations (StVO). Protect your staff, give road users professional warning.

We can also equip your vehicles with new LED technology!



ADAC tests motorway road works

In the September issue of its "Motorwelt" magazine, the ADAC had 50 motorway road works tested for traffic safety in eleven countries in Europe. The results were evaluated by the Technical University of Dresden according to criteria such as: traffic control, signs / marking, carriageway, guidance at night and information to road users. The safest road works in the test were on the Austrian motorway A1 near Traun. Seven of nine secured road works in Germany did well in the test. Italy brought up the rear, with four of five road works said to be insufficient. What is alarming is that nearly two thirds of all tested motorway road works in Europe were only secured adequately or worse.

70 years working for the the Berghaus Group



The Berghaus Group has rewarded long-standing employees in a special ceremony (from left to right: D. Berghaus, A. Dorff, U. Banischewski, G. Krämer)

At the end of August, a special ceremony was held to reward altogether 70 years of service for the company. Dieter Berghaus, Managing Director of M + V GmbH and shareholder of Peter Berghaus GmbH presented the awards to the deserving staff. All employees of the two subsidiaries gathered on the company premises of M + V GmbH in Eichhof.

Uwe Banischewski (EPB control construction) and Andreas Dorff (electric workshop) look back on 25 years of service for Peter Berghaus. Guido Krämer (dispatcher for hired equipment) has worked for M + V GmbH since 1985. Dieter Berghaus praised their loyalty to the company and offered them the gratitude and congratulations of the whole company.

New: crash barrier holder now with arm

As an addition to our proven TL-tested galvanised crash barrier holder, which can be used to erect signs immediately at the post of the crash barrier, we have added a new TL-tested crash barrier holder with side arm to our range of products:



New: crash barrier holder with side arm; order No. VZ 5101A



This makes it easy for traffic signs and traffic control boards to be erected quickly and easily to 40x40 mm and 60x60 mm square shaft pipes even outside the traffic area. The TL crash barrier holders have been tested by a sworn expert according to the technical delivery conditions for erection devices for signs and traffic devices at road works and fulfil the stability class up to 2xK9 (TL erection devices).

Telescopic mast for traffic control boards

Following a customer's suggestion, we have developed a new simplified erection system for traffic control boards. The telescopic mast made of aluminium is ideal for quick and easy erection of traffic control boards size II (1650 x 1250 mm) and size III (2000 x 1250 mm). The erection height is fully adjustable thanks to the lower holder which can slide freely on the mast up to maximum head clearance of 2.2 m at the lower edge. The three-part telescopic mast, consisting of stand mast, lower U-profile holder for pushing over the stand mast, push-out telescopic mast with U-profile and locking peg, can be used to erect all traffic control boards up to 50 mm thick at the edges. The corresponding traffic control boards are secured at the

lower holder by two clamping screws, and by a locking peg at the upper U-profile (at the push-out telescopic mast). Thanks to the very light-weight but highly robust aluminium system, it is possible for just one single person to proceed with erection. Place the telescopic mast in the corresponding sign stand, crash barrier holder, etc. Adjust the lower holder to the required height and screw tight.



Training courses 2006: register now!

As already described on page 1, we are once again offering our training courses for "traffic light experts". Over the last 10 years, more than 1000 skilled experts have been trained in handling portable road works signal systems and how to draw up signal time-tables, in our premises both in 51515 Kürten and in 99441 Mellingen. As in the previous years, the course leader is master electrician Alfred Wurth.

The dates for courses being held in Kürten during 2006 are as follows:

Course I: 30/31 January 2006

Course II: 1/2 February 2006

and for courses in Mellingen:

Course I: 6/7 March 2006

Course II: 8/9 March 2006

Make the most of this chance to obtain qualifications to make sure you are well equipped for the future! Register now by post or fax to make sure you will be able to attend one of our highly desirable training courses.



✂...please cut out, fill in the details and send to us....✂

Registration form

Training course I (€ 290 per person)

Course date: _____

Course venue: _____

Company: _____

Address: _____

Phone: _____ Fax: _____

First name/Surname: _____

First name/Surname: _____

Training course II (€ 290 per person)

Course date: _____

Course venue: _____

Company: _____

Address: _____

Phone: _____ Fax: _____

First name/Surname: _____

First name/Surname: _____

Date _____ Signature _____

Training course I lasts 2 days and deals with the following topics:

Day 1:

- Brief explanation of TL-LSA and ZTV-SA
- Calculating signal time-tables for one way alternating traffic systems
- Implementing time-tables in signal systems MPB 3003 and MPB 4000
- Analytical troubleshooting and fault rectification

Day 2:

- Calculating signal time-tables for signal systems at junctions and cross-roads with the traffic light time-table program
- Implementing the time-tables in signal system MPB 4000
- Familiarisation with the SMS remote monitoring system

Training course II lasts 2 days and deals with the following topics:

Day 1:

- Explanation of TL-LSA
- Drawing up signal time-tables with the traffic light time-table program
- Implementing the signal time-table in the control units EPB 6000 S, EPB 2400 and in the new control unit EPB 48 multi-processor
- Familiarisation with the SMS remote monitoring system

Day 2:

- Programming with the new traffic light Win program, version 3.0
- Practical uses for the control units EPB 6000, EPB 2400 and EPB 48 multi-processor
- Analytical troubleshooting and fault rectification
- Video detector with presence detection

Unfortunately, all training courses will be held in German only.



Push the traffic control board into the upper U-profile of the push-out telescopic mast from below. Then push the traffic control board up together with the telescopic mast beyond the lower holder, after that simply lower the board into the U-profile of the lower holder. All that's left is to tighten the clamping screws – all finished!

New accessories for signal pedestrian system

Our proven cable-controlled portable pedestrian signal system type FÜ-12V/230V is used in request or automatic mode for temporary traffic control at pedestrian crossings (e.g. for school road safety). It has signal protection according to VDE 0832 and RiLSA. This signal system can also be used for controlling one-way alternating traffic instead of pedestrian traffic.

The power supply to the signal system consists of 12V batteries or 230V/12V with power pack. The central control with the control elements is integrated in one of the underframes accommodated in an autonomous housing and protected from unauthorised access. All standard signal heads are equipped with G4 halogen lamps 12V/10W. 20W halogen lamps can also be used with the G4 sockets.

The following new developments or on-going developments of existing products consist of additional features which can be ordered on request when purchasing the signal system.

LED technology ex works

On request, the signal system can now be equipped ex works with the new, energy-saving LED technology. This reduces power consumption of the signal system considerably by up to 60% with un-reduced brightness.

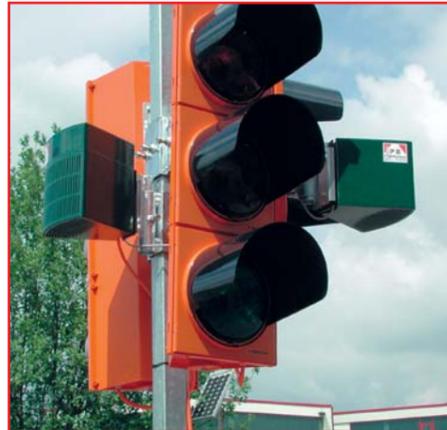
The maintenance costs are also reduced with a large increase in the intervals for changing the batteries, and with there no longer being any need to replace any halogen lamps. Furthermore, this LED system produces practically no phantom

effect because our development fundamentally does not use any reflectors, which in conventional systems can result in an irritating reflection of incidental sunlight.

Signals for the visually handicapped

If necessary, the pedestrian signal system can also be equipped with tactile signal transducers.

As is the case with many stationary pedestrian signal systems, this consists of an acoustic signal transducer which



emits an orientation signal (a permanent pilot tone, then a "walk" tone when the light changes to green). In this case the signal system is equipped ex work with special request buttons in accordance with RiLSA which also indicate the position and type of the crossing through the haptic design of the symbol on the button.

Digital counter

A standard integrated digital counter shows the number of cycles requested by the pedestrians.



On request, the control can also be equipped with a digital traffic counter ex works (compatible with Windows) which can be read off by a laptop.

The standard cable-controlled portable pedestrian signal system type FÜ-12V/230V consists of four vehicle and two pedestrian signal heads with pressure-free piezo request buttons. The central controls with BCD switch for precise time settings from 1 to 999 seconds are accommodated in one of the two underframes. They also offer space to accommodate batteries or power packs and for all parts of the signal system (e.g. signal transducer, cables, holders etc.) during storage. The scope of supply includes all connection leads required for operation, together with 2 divisible 6 m inserting masts for taking the cables across the road.



Heavenly assistance for traffic congestion



Support from on-high for the police during the XX. Catholic World Youth Day

Police in the greater Cologne area received support of a very special kind for traffic management during the central events of the XX. Catholic World Youth Day, consisting of traffic data obtained by the German Aerospace Centre (DLR) using a zeppelin. During peak times, a team from Berlin's DLR Institute for Traffic Research was on duty in the skies above Cologne to send aerial photographs in real time to the police on the ground and to develop traffic forecasts for the next 30 to 60 minutes. Following various research projects where the DLR's scientists have used state-of-the-art camera and measuring systems, this was the first operative use of a zeppelin for a major event. The traffic forecast by DLR's traffic researchers based on stationary traffic data obtained in the air and from the traffic simulation in the DLR traffic tower were used by police headquarters for early detection of possible bottlenecks and congestion. It was clear to everyone involved that it would not be possible to avoid hindrances completely. Klaus Steffenhagen, Cologne's Police President, was subsequently full of praise for the way most of the population reacted to the traffic hindrances with their own particular brand of Rhenish equanimity.



Static tested aluminium systems

Our static tested aluminium systems are ideal for example for safe erection of traffic signs, for accommodating signal heads, for fitting overhead cables, etc. – practically for universal use in mobile traffic technology. The 6 m high aluminium lattice mast consists of only 8 individual parts. The modular plug-in design makes it quick and easy to assemble, even with the 6 m arm. The 50x50 cm lattice mast structure guarantees extraordinarily high strength values in spite



of the low weight, and can be transported without taking up much space. The robust 6 m aluminium round mast

system was designed primarily for use in mobile signal systems. It is an ideal standing mast for fitting overhead cables and – with or without arms – for accommodating signal heads, which can thus be suspended simply at the edge or in the middle of the carriageway. Both systems stand securely in a concrete base and are quickly erected and dismantled. Together with easy handling, another advantage of these modular structures is the low weight of the individual parts.

Please request our detailed special leaflet "Aluminium structures".



Joke box



Female cunning ...



A policeman stops a young woman for driving at 80 km/h in a 30 km/h zone. The following conversation takes place:

Policeman: Can I see your driving licence?

Woman: I haven't got one anymore. I lost it a few weeks ago after being caught for drunk driving for the third time.

Policeman: Aha. Can I see the car's registration papers then please?

Woman: That's not my car. I've stolen it.

Policeman: That's a stolen car?

Woman: Yes, but let me just think a minute. I'm sure I saw the papers in the glove compartment when I put the gun in there.

Policeman: You've got a gun in the glove compartment?

Woman: That's right, I chucked it in there after shooting the owner of the car and putting the body in the boot.

Policeman: A body in the boot?

Woman: Yes!

After hearing all that, the policeman radioed in for support from his superior. The car was surrounded. The senior colleague approached the driver slowly and questioned her again:

Policeman: Can I see your driving licence please?

Woman: Of course, here it is.

Policeman: Whose car is it?

Woman: It's mine. Here are the papers.

Policeman: Can you please just open the glove compartment? I'd like to check to see if you've got a gun in there.

Woman: Of course, gladly. But I haven't got a gun.

Policeman: Can I take a look in your boot? My colleague says you've got a body in there. (No body).

Policeman: I don't understand that at all. The policeman who stopped you told me that you had no driving licence, had stolen the car, had a gun in the glove compartment and a body in the boot.

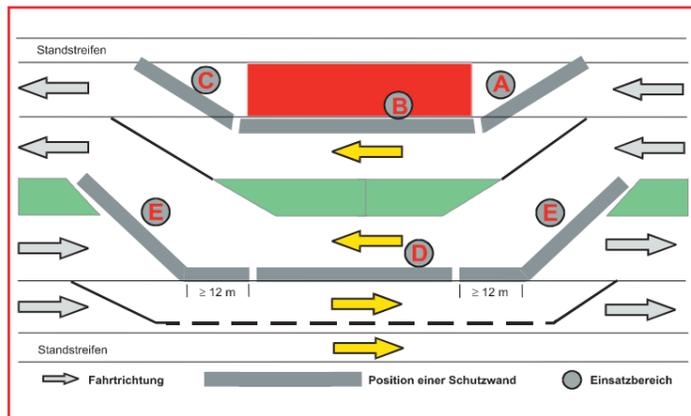
Woman: Great! And I bet he told you I'd been speeding too!

Information about portable safety devices

Minimum demands for portable steel barriers

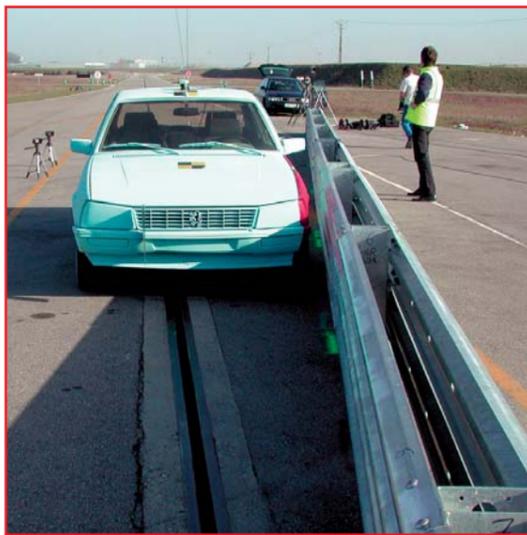
Portable steel barriers are supposed to offer optimum protection. But the protection zone of a steel barrier depends on several factors. The length of a steel barrier is not the same as the length of the object being protected. We speak of minimum length, test length, erection length, length of the area being protected and road works length, and there are sure to be a few more lengths as well! These various lengths cannot simply be said to be equal to an object being protected

length is always the same as the test length. If we want to protect a centering scaffolding rib with a length of 20 m, we have to look for a steel barrier with a really short test length. This must then also be at least the length of the erected structure. But this is not all: even the test length is not enough to offer real protection! Why not? The steel barrier is impacted in a test (crash test) in the first third of the erected length, the remaining two thirds of the length serve to absorb and deflect the energy of the vehicle. Of course it must also be possible to reconstruct this situation in practice. That means the length of the object being protected must be at least one third of the test length and the remaining length should then also be at least another third. I quite personally am of the opinion that another two thirds of the test length are necessary after the object (under the same conditions as the crash tests). If you add this all together, you arrive at a completely different length than the one featured in the invitation to tender. How do you react



Possible uses for portable steel barriers on dual carriageway roads

Let's have a look at the picture from the ZTV-SA. Here we can see the various possible uses. The area "D" for separating flows of traffic in opposite directions is really no problem as far as the length is concerned. The minimum length is always reached in this case. One problem that can arise in this context is that the measured length can differ greatly from the specified length, although the kilometre measurement was correct. It is always amazing what a difference it can make whether a barrier is placed on the inside or outside curve radius of the carriageway. The situation deteriorates even further when a steel barrier is converted from the inner to the outer radius and the fitters suddenly notice that a few meters of barrier are missing. But that is not our issue here. We want to look at the area "B" on the picture. More and more steel barriers are being demanded here, which must be welcomed. They are required for example to protect staff working there or as protection for a centering scaffolding rib. But unfortunately, tenders repeatedly state other lengths which cannot be accepted without further ado. If for example a centering scaffolding rib is 20 m long, the invitation to tender for the steel barrier cannot also be for 20 m. Why not? Well, every temporary steel barrier has a minimum length which guarantees the impact and absorption level. This



as supplier when dealing with this kind of specification text? And what can you as authority behind the invitation tender do with this information? There are surely several ways of dealing with this invitation to tender. But only one can be correct for work of this kind: for a steel barrier to offer safety – that is what it is for and that it is why it is featured in the invitation to tender – than it really ought to fulfil the minimum conditions. Anything else would simply fail to comply with the ZTV-SA or conform with the DIN EN 1317.

HARRY'S COLUMN

Help from the ZTV-SA

An invitation to tender was issued for road works on a motorway and sent to various companies responsible for road works safety. The order went to company 'X'. The tender featured among others 6000 m portable steel barrier T1 / W3 for



But of course I could also provide him with the "original" ZTV-SA, which under point 6.9 also states: "(1) Structural control elements can be agreed in the specification description as follows: - as replacement for continuous marking on all roads ...

separating traffic travelling in the opposite direction in a 4+0 traffic control system. Company 'X' was pleased to receive the order. Traffic sign drawings were drawn up, stipulating the positioning of the steel barrier and the marking. On actually measuring the cross sections on the motorway however, it transpired that the tendered widths fell short of the necessary widths specified in the RSA. The responsible motorway maintenance supervisor therefore demanded that the company responsible for road works safety should affix yellow marking foil 15 cm wide in front of the steel barrier to make it easier to see the widths of the carriageways.

- to increase the control effect and reduce speed."

Already the authorities agreed. Everyone quickly realised that marking in front of a steel barrier is not included, because according to the TL, the lane divider replaces the marking! If the authority, as ordering client, wants to have marking in front of the steel barrier, as in this particular case, this has to be ordered separately and also paid accordingly (e.g. as follow-up order).

Remark on the ZTV-SA: the structure in the ZTV-SA and in the ZTV-SA with comments is the same so that the same mandatory details can be found in both issues.

Company 'X' couldn't believe their ears. That had not been part of their order and certainly not included in their calculations. And anyway, they never fitted marking foil in front of a lane divider which is fitted with reflectors, as demanded in the "TL Portable Safety Devices 97". But the reply from the authority was that for a traditional traffic control system, e.g. 4+0, originally a double line of marking foil always used to be fitted. And so the foil would also have to be used in this case too!

Yours



Harry Lippert

Any more questions?
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phone: +49(0) 700 / 454 77 378
fax: +49(0) 2681 98 31 37

I was now asked by the corresponding person responsible for the order at company 'X' whether there are any regulations stipulating that foil really has to be fitted in front of a steel barrier? And whether there is a corresponding section in the RSA or ZTV-SA? The ZTV-SA, and in this case we are using the "ZTV-SA with comments" really does provide a lot of information.

Quickly I found what we needed and submitted the corresponding article to company 'X'. But this was rejected by the authorities. Because, according to the authorities, not everything written in the "ZTV-SA with comments" is mandatory and therefore certainly not relevant for the clients of company 'X'. The person responsible at company 'X' nearly gave up.

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ERNENNUNG

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wurde vom Bundesverband Deutscher Sachverständiger und Fachgutachter e. V. zum

**Sachverständigen für
Arbeitsstellensicherung
auf Straßen**
ernannt.

Wir wünschen viel Erfolg!



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