



Bremspunkt



THE CUSTOMER MAGAZINE FROM KNORR-BREMSE
COMMERCIAL VEHICLE SYSTEMS
ISSUE 2 | SEPTEMBER 2016

KNORR-BREMSE AT MAJOR TRADE FAIRS

Strong presence at IAA and Automechanika

INTERVIEW WITH EXECUTIVE BOARD MEMBER DR. PETER LAIER

A glimpse of the future

BEST BRAND 2016

Serial winners

KNORR-BREMSE



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IMPRINT:

Published by:

Knorr-Bremse Systeme für
Nutzfahrzeuge GmbH
September 2016

INFORMATION FOR KNORR-BREMSE CUSTOMERS AND PARTNERS

Design and creation:
ETMservices (Project leader: Georg
Weinand) and KB MEDIA GmbH,
Marketing und Werbung

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Automechanika, Alltrucks,
IAA, Hennig Fahrzeugteile,
Hengstenberg,
Knorr-Bremse, tedrive

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Publisher:
EuroTransportMedia
Verlags- und Veranstaltungs-GmbH
www.eurotransport.de
Department ETMservices
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Handwerkstraße 15, 70565 Stuttgart
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Dr. Jürgen Steinberger

Member of the Management Board
of Knorr-Bremse Systeme
für Nutzfahrzeuge GmbH

EDITORIAL

Dear Reader,

I would like to use the opportunity of this latest issue of Bremspunkt to introduce myself as a new Member of the Management Board with responsibility for Vehicle Dynamics, Automated Driving and Systems Development. In view of the growing importance of automated driving systems, this has become a separate area within our management system.

Automated driving is a central theme of this year's IAA Commercial Vehicles. Knorr-Bremse is already doing pioneering work in the field – and is expanding its involvement with the planned acquisition of tedrive Steering Systems. You can read more about this in our interview with Dr. Laier, Executive Board Member responsible for the Commercial Vehicle Systems division. In the "New Mobility World Live" open-air exhibition area in Hanover we will be demonstrating what is already technologically feasible in this field. Why not come along and see for yourselves how Knorr-Bremse systems can help a truck to maneuver fully automatically to and from its unloading bay?

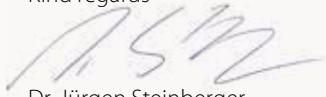
In the open-air display area outside Hall 17 you can also find out about the full range of products on offer for trailers and talk to experts from our development and sales departments. Inside Hall 17, trailer and aftermarket products each have a separate "island" at our booth, with four islands showcasing our entire product portfolio – from compressors to complete wheelend solutions.

Aftermarket products and services will not only feature at the IAA but also at the year's other major event: the Auto-mechanika trade fair, where we will be focusing in detail on our program for distributors, workshops and fleet operators. In particular we will be showcasing our new Knorr-Bremse TruckServices brand. Under the motto of 'Keep it running', Truck-Services are set to provide an efficient service to keep your vehicles ready for action at all times.

As you can see, our focus in 2016 is very much on these two important trade fairs – IAA Commercial Vehicles and Auto-mechanika – and we look forward to the opportunity they give us to introduce our innovative products and services. This issue of Bremspunkt provides a foretaste of what you can expect.

I hope you find it an enjoyable read!

Kind regards

A handwritten signature in blue ink, appearing to read "JSM".

Dr. Jürgen Steinberger



A PACKED PROGRAM AT THE RING

CHIEF SPONSOR KNORR-BREMSE'S TRUCK-SERVICES AFTERMARKET BRAND is Jochen Hahn's new partner in the workshop.

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The 31st Truck Grand Prix at the Nürburgring was something special. On the first weekend in July, truck racing fans thronged to the famous Eifel race track, leaving the Formula 1 Grand Prix that took place at the same time looking distinctly tired by comparison. 123,000 spectators created a party atmosphere inside the Ring, whereas just 85,000 turned up to watch the F1 speedsters ply their trade at the Austrian Grand Prix in Spiel-

berg. And the truck racers didn't disappoint, with Jochen Hahn and the Czech Adam Lacko in particular engaging in some thrilling head-to-head duels.

Hahn's brilliant form undoubtedly owes a debt to his chief sponsor Knorr-Bremse and new partner Knorr-Bremse TruckServices, the Munich-based group's new aftermarket brand. This new deal further strengthens a

partnership that has already seen Hahn and Knorr-Bremse collaborating for several years. But TruckServices doesn't only provide support to racing drivers. The new Knorr-Bremse venture is first and foremost aimed at providing distributors, workshops and fleet customers with individually customized products and services, all of which offer the usual Knorr-Bremse quality.

Numerous customers and the Knorr-Bremse competition winners, who were treated to a tour of Jochen Hahn's professional pit area, had the chance to see for themselves why Jochen Hahn and Knorr-Bremse are such a great fit for each other.

A RENDEZVOUS WITH HAHN IN THE PITS

The competition winners and some of the participants in this year's customer satisfaction survey had the opportunity to get the inside track on truck racing and hear fascinating first-hand stories from Jochen Hahn himself over a glass of champagne. And away from the racing, Knorr-Bremse also had plenty of other things going on at the Truck Grand Prix. This included organizing the Go & Stop race, the ultimate test of drivers' skills, as well as participating in the Europart in-house exhibition that was also held at the Nürburgring.

HENNIG NOW INVOLVED IN TRUCK SECTOR

Essen-based Coparts partner Hennig can boast some impressive figures: The vehicle parts distributor has six central warehouses in which it stocks more than 100,000 articles – all of them original parts. And it can call up a further 1.5 million from other distributors as well. The company serves some 10,000 customers throughout Germany and its delivery vehicles make 500 journeys per day. All this is made possible, amongst other things, by a state-of-the-art warehousing system that uses scanners and pick-by-voice technology. Potential buyers of Knorr-Bremse original spare parts will be pleased to hear that since its acquisition of a number of commercial vehicle parts distributors, Hennig's excellent infrastructure and customer-focused service is now also available to anyone seeking quality products from the Munich manufacturer.





Dr. Laier of the Executive Board and the entire management of Knorr-Bremse Commercial Vehicle Systems celebrate the award of the 'Best Brand' title.

SERIAL WINNERS

For the eleventh year in succession Knorr-Bremse has won the title of 'Best Brand' in the commercial vehicle industry in the 'Brakes' category. Bernd Spies, Chairman of the Management Board of Knorr-Bremse Commercial Vehicle Systems, traveled to Stuttgart to accept the award, which is made on the basis of the biggest reader survey in the German commercial vehicle segment. More than 9,000 readers of the trade journals 'Fernfahrer', 'lastauto omnibus' and 'trans aktuell' responded to a request from the ETM publishing house to choose the best trucks and brands in the industry. An endorsement from this

expert audience is widely respected as a seal of quality for the safety and reliability of the winning brands and products, as well as being an important indicator of the state of the brand's image. "The fact that such an expert audience continues to appreciate and honor our performance in this way is a great source of motivation for us every year to do even better," said Spies. "We are already looking forward to welcoming our customers to the IAA Commercial Vehicles and the Automechanika trade fairs in September."



HENGSTENBERG STOCKS ORIGINAL SPARE PARTS FROM KNORR-BREMSE

Since April 1, Essen-based vehicle and engine parts supplier Hengstenberg has included original Knorr-Bremse parts in its portfolio following its acquisition of Dortmund specialist company Udo Kramer. Hengstenberg operates a sophisticated logistical system that ensures rapid direct access to its huge product range, with more than 14,000 square meters of warehousing space in Essen and Dortmund housing up to 100,000 commercial vehicle parts for instant supply to distributors and workshops. With a workforce of around 180, the Hengstenberg Group supplies some 500 customers with more than a million spare parts and accessories for all brands of vehicle.

FIRST ALLTRUCKS PARTNERSHIP EVENT

At the start of June, Alltrucks organized its first partnership event in Munich. Almost 200 workshop partners from Germany, Austria, Switzerland and Italy, together with business partners and associates, used the opportunity to meet and have an intensive exchange of ideas. Two companies that have entered into cooperation agreements of importance for Alltrucks' also introduced themselves: An agreement signed with low-loader specialist Goldhofer will give Alltrucks partners access to extensive product and service information as well to the 24-hour technical hotline operated by the Allgäu-based company. In addition Alltrucks partners will be offered attractive conditions for purchasing Goldhofer spare parts. And an agreement with EuropeNet – an offshoot of the motoring association ADAC – will give customers of partner workshops in Germany, Austria and Switzerland access to a highly-experienced, professional 24-hour breakdown service. Alltrucks intends to continue to grow: Its headquarters in Munich announced that it was launching operations in Benelux from July 1, and preparations are also underway to enter further markets.

INTERVIEW

A GLIMPSE OF THE FUTURE:

DR. PETER LAIER, EXECUTIVE BOARD MEMBER OF KNORR-BREMSE AG
RESPONSIBLE FOR THE COMMERCIAL VEHICLE SYSTEMS DIVISION



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Where are things going in the field of automated driving?

The first steps have already been taken: lane departure warning, adaptive cruise control, emergency braking assistant – and the next steps will include things like blind spot assistance, congestion assistance, lane keeping assistance and yard maneuvering. A central theme of the IAA will be the new scope offered by automated driving and telematics. After many years in which markets have been dominated by a focus on safety and fuel efficiency, there are now new areas driving innovation in the sector.

Is that a good thing?

It's a very good thing! This is where our systems competence puts us at an advan-

tage. At the IAA we will be showcasing our new blind-spot assistant and, in particular, a system that enables a truck to drive autonomously off-highway. Our message is clear: We are determined to play an active part in preparing the ground for fully automated driving.

Knorr-Bremse has moved into a new field with its acquisition of tedrive Steering Systems. Why have you done this?

It's the next logical step. On the one hand it means we have extended our product portfolio and gained access to new markets. On the other hand we can now actively influence both lateral and longitudinal truck dynamics – for example in order to keep a truck automatically in lane or help it steer round a hazard. This is where

tedrive's iHSA® technology (intelligent Hydraulic Steering Assist) – an electronically-controlled hydraulic steering system specially developed for automated trucks – plays a crucial role. These examples of driver assistance programs and automated driving demonstrate how we can use intelligently networked systems to generate added value for our customers.

What are the next steps for Knorr-Bremse?

Our new Synact disc brake is not only lighter and more powerful – it can also integrate the new sensors and actuators required for automated driving functions. With all these developments we are being careful to ensure that the costs and complexity of the truck hardware and

software are kept to a minimum by designing modular, scalable, globally standardized systems that meet the various different requirements of trucks all over the world. In this context, our new Global Scalable Brake Control (GSBC) is a real breakthrough. In addition to new braking and air treatment/supply systems, we will also be introducing a large number of powertrain innovations in Hanover, ranging from a new AMT control module for manual gearshifts to an advanced clutch servo and mechatronic exhaust valves manufactured by our new subsidiary, GT Group, that perfectly complement the existing Knorr-Bremse product portfolio.

Where do you see further potential in terms of total cost of ownership?

As components become increasingly digitalized, we are moving away from fixed maintenance intervals towards usage-based or predictive maintenance. This makes it easier for customers to plan their workshop schedule and reduce downtime to an absolute minimum – and at the same time the risk of breakdowns is much lower. Intelligent networking of our systems also offers customers further scope for making savings.

Apropos workshops and the aftermarket. What is Knorr-Bremse's stance on these?

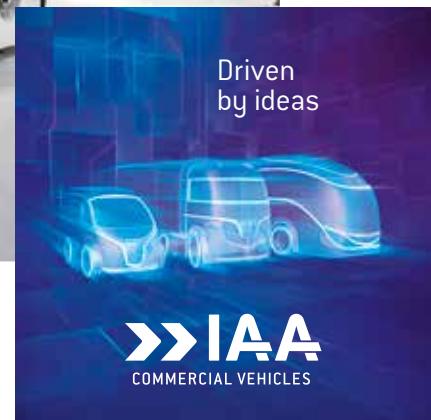
In addition to the acknowledged quality of our OES aftermarket solutions, we also have a flexible portfolio of cost-effective solutions for vehicles of all ages and conditions. At Automechanika we will be presenting two new brands: TruckServices bundles our entire aftermarket portfolio; and EconX® is the new name for all our remanufactured products. These two brands will provide the basis for continued expansion of an aftermarket portfolio that is already unrivaled in the industry. Complementing all this is our Alltrucks workshop concept that we are operating in conjunction with ZF and Bosch. It already includes over 200 workshops in Germany and in other countries and can offer so much more than just brake-related services.

TEDRIVE FOR AUTOMATED DRIVING

Knorr-Bremse is taking over tedrive Steering Systems GmbH based in Wülfrath, Germany. With this acquisition, the world's leading manufacturer of braking systems is adding state-of-the-art steering systems to its portfolio. tedrive was responsible for developing so-called iHSA® (intelligent Hydraulic Steering Assist) technology – a hydraulic system with electric steering actuation that meets the demands of autonomous driving in commercial vehicles. It means that in future, Knorr-Bremse will be able to offer advanced automated driving functions. The acquisition is subject to approval by the anti-trust authorities.

Dr. Laier: "A central theme of the IAA will be the new scope offered by automated driving and telematics."





SYSTEMS FOR AUTOMATED DRIVING

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THIS YEAR'S IAA COMMERCIAL VEHICLES WILL BE DOMINATED LIKE NO OTHER BY A SINGLE TOPIC: automated driving – trucks that reach their destination autonomously, or vibrate the steering wheel to warn the driver. Knorr-Bremse will not only be showing how a truck can maneuver itself into its loading bay but also revealing the systems that make this possible.

In the trade fair's open-air display area, Knorr-Bremse will offer a glimpse of tomorrow's world. At the "New Mobility World Live" demonstration area – formerly known as the Innovation Stage – a truck equipped with Knorr-Bremse technology will automatically maneuver in and out of its loading bay. "Yard maneuvering", as the company calls it, is initially designed for closed areas within depots. In a foretaste of what tomorrow's private automobiles will be capable of, the system guides the vehicle rapidly and with a high degree of accuracy and safety across the loading area.

THE SYSTEMS THAT MAKE IT POSSIBLE

Inside Hall 17, at the Knorr-Bremse booth, the systems and components will be on





display that have to be networked together to make such a maneuver possible. One old friend will be there too – the truck model that shows the complex interaction between the various control elements. This year, though, there is an additional monitor showing Knorr-Bremse's trailer-specific applications, some of the sensors for accurate environment recognition, and the steering components designed by tdrive Steering Systems. The planned acquisition of this steering specialist is the next logical step for Knorr-Bremse: By adding steering to its portfolio, the company has increased its control of all the various dimensions of vehicle dynamics. The stand also incorporates five product 'islands' showcasing the state-of-the-art technologies that Knorr-Bremse offers the commercial vehicle sector, from its compressor with aluminum casing, mechatronic transmission control, and electronic brake control, right down to com-

plete wheelends with brake calipers discs, pads and actuators.

Systems for trailers and semi-trailers displayed on a separate island include the latest versions of trailer EBS and ABS, the iLvl electronic air suspension system and iTAP – the 'intelligent Trailer Access Point', which creates a digital link between your smartphone and the trailer, whatever the type of tractor vehicle involved. Everything is rounded off by Knorr-Bremse's trailer display in the open-air location just outside Hall 17, a stone's throw from the main booth (see also the insert in this issue).

AFTERMARKET ISLAND

Remanufacturing as a cost-effective alternative to repair, especially for older vehicles, will also be a major topic at IAA 2016. This year, following meticulous preparations and



A 720 ccm compressor also forms part of the exhibition portfolio.

the creation of the required infrastructure, Knorr-Bremse has officially included the first remanufactured trailer brake calipers in its portfolio. And – just in time for this autumn's two main trade fairs – a remanufactured version of the SN7 heavy-duty truck brake will also be added. A clear sign of Knorr-Bremse's commitment to 'genuine remanufactured exchange parts' will be the presence of EconX® – the new remanufactured product brand – at the IAA. And a few days before the Hanover exhibition, the new TruckServices aftermarket brand, which comprises Knorr-Bremse's entire restructured aftermarket portfolio, will be introduced at the Automechanika 2016 trade fair in Frankfurt (see also the article about Automechanika on page 10). Visit us at IAA 2016 and find out about our extensive range of solutions for ensuring a long and efficient working life for your vehicle!



The "transparent truck" symbolizes Knorr-Bremse's truck and trailer systems competence.



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TRUCKSERVICES

SERVICE AS INDIVIDUAL AS THE VEHICLE

AT THE AUTOMECHANIKA TRADE FAIR IN FRANKFURT, KNORR-BREMSE IS PRESENTING ITS NEW AFTERMARKET BRAND – TRUCK-SERVICES. Under this name the company has bundled the services it provides to keep vehicles of all categories and ages running efficiently. Every vehicle is different, and the maintenance service on offer has to reflect this.

Every truck has its own story to tell: Oslo-Mannheim last week, Valencia-Geneva this week; or simply: Karlsruhe-Pirmasens, week in, week out. The load may be food, hazardous materials or industrial supplies. And just as the vehicles and their freight differ, so, too, do the conditions under which they operate. But they all have one thing in common: They have to be kept on the road day and night – as cheaply and reliably as possible.

KEEP IT RUNNING

In order to demonstrate the required flexibility, Knorr-Bremse has put its aftermarket portfolio under a new brand name: 'TruckServices', with a slogan – 'Keep it running' – that expresses the brand promise: a cutting-edge service that keeps vehicles on the road as effectively as possible by offering individual advice and constantly working with distributors,



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Hall 3.0, Booth E91

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AUTOMECHANIKA

The 24th Automechanika in Frankfurt is the world's biggest trade fair for the automotive aftermarket. Experts and decision-makers from the workshop and spare parts sectors come to Frankfurt to find out about the latest developments in the aftermarket process chain. The importance of the event is underlined by the presence of all the leading German industry associations and companies. Many of them have been showcasing their products and services to international visitors ever since the trade fair first opened its doors in 1971.

workshops, fleets and drivers to develop appropriate solutions.

MAXIMUM AVAILABILITY ...

Sophisticated spare parts logistics, combined with a strong network of trade partners and several strategically located distribution centers ensure that whatever is required, the 10,000 or more parts in the company's portfolio are available for rapid delivery.

... WITH AS FEW PARTS AS POSSIBLE

"At the same time our rationalization and servicing strategy for aftermarket products ensures that the number of parts required

to provide a full service does not get out of hand," explains Fritz Messerli, Director Sales & Marketing Independent Aftermarket Knorr-Bremse. "We supply vehicle manufacturers with a wide range of different installation variants – that is the only way we can be sure that our products are best adapted to OE needs. But if you plan things properly, you can do without much of this complexity when it comes to servicing." In the case of caliper units, for example, Knorr-Bremse has been able to reduce its original portfolio of more than 1,600 different braking systems to a mere 140 calipers for the aftermarket. And a similar effect has been achieved for compressor kits. The advantages for distributors and workshops are obvious: Simplified ordering and fewer products held in inventory means improved availability.

A SOLUTION FOR EVERY SITUATION

Today's workshops have to respond flexibly to a wide range of customer requirements. Decisions between value for money, rapid availability, maximum sustainability and long-term value retention are always having to be made in consultation with the vehicle owner. Customers expect the chief technician to be familiar with the full range of options and to have the right solution at hand for every transportation and vehicle situation. This is where the expertise offered by TruckServices comes in – in the form of training by experienced workshop professionals and round-the-clock availability of online documentation.

ECONX® – GENUINE, ECONOMICAL, SUSTAINABLE

AFTERMARKET 4.0: CHILL-OUT EVENT

In addition to the displays of new products and services, a daily event will also be taking place at the Knorr-Bremse TruckServices booth. Under the title of 'Aftermarket 4.0: Chill-out Event' there will be an opportunity every day at 5:15 p.m. to find out about the latest trends in the rapidly developing field of digitalization and connectivity. The program will be as follows:

Tuesday, 13 Sept., Robert Hanser, LKQ: Aftermarket 4.0 – What's in it for distributors?

Wednesday, 14 Sept., Matt Hague, Microlise: Aftermarket 4.0 – What's in it for fleets?

Thursday, 15 Sept., Frank Schlehuber, CLEPA: Aftermarket 4.0 – What's in it for the entire supply chain?

Friday, 16 Sept., Nils Hollmann, Alltrucks: Aftermarket 4.0 – What's in it for workshops? We look forward to welcoming you there!

Knorr-Bremse has continued to expand its portfolio of genuine remanufactured products specially designed for value-based repair of older vehicles. In the spring of this year, 'genuine remanufactured' calipers for trailer disc brakes that meets Knorr-Bremse's OEM quality standards were added to the list. This represents a breakthrough, as it means that for the first time it is possible to carry out value-based repair of a vehicle without any risk of compromising quality. At Knorr-Bremse, engineering design, production and remanufacturing are so closely linked that the company is able to maintain its quality standards even when products embark on their second life. That is why it was decided to give them their own brand name.

At the Automechanika trade fair Knorr-Bremse is therefore launching 'EconX' as part of its TruckServices concept. This brand name replaces the more unwieldy phrase 'genuine remanufactured product'. EconX – five letters that sum up the essence of what is on offer: good value, sustainable products remanufactured by the original manufacturer. The unique product expertise that flows into many aspects of the process means that Knorr-Bremse can ensure the same functionality for EconX products as for the corresponding OEM ones – the only difference being that they have a shorter life expectancy to match the age of the vehicle. They are an ideal alternative, offering cost advantages but making no concessions in terms of functionality and safety.

PREFERABLY NEVER REQUIRED ...

Fleet operators not only have to adhere to strict time schedules – in every decision they make they also have to take into account a vehicle's age and value, as well as its predicted lifespan and intrinsic value. They



need minimal, predictable downtimes for maintenance and repair. And it goes without saying that maintenance planning for a special vehicle calls for a different type of investment than for an older standard vehicle. In both cases, though, unplanned downtimes are to be avoided.

... BUT IF NECESSARY, AVAILABLE EVERYWHERE

If a vehicle does break down, rapid assistance is essential – and however skilled a company's own workshop may be, it is of little use if it is located hundreds of kilometers away. "It's not just our spare parts logistics that are organized internationally," says Messerli. "The workshop concept that we

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put together with Bosch and ZF also operates on an international basis. Our customers can be sure that the 200-plus Alltrucks workshops, combined with our Knorr-Bremse Service Centers (which are also being relaunched as the TruckServices Expert Network), will deliver truck services in their purest form." Representatives of both Alltrucks and the Expert Network will be on hand at the Automechanika booth to explain what they have on offer.

Alexander Wagner – Vice President Aftermarket Europa, Middle East and Africa (EMEA) – explains: "With the introduction of the two brands – 'TruckServices' and 'EconX' we are taking a big step towards individualization and flexibilization of our aftermarket

offer. Every truck is unique and deserves a tailor-made response according to its particular use and residual value. We aim to expand our services along these principles."

FURTHER INTERESTING INNOVATIONS

But there are even more reasons to pay a visit to the Knorr-Bremse TruckServices booth at Automechanika – which is 50 percent bigger than last year. One of the products on show will be iTAP (intelligent Trailer Access Point) with video cameras that enable the driver to monitor the cargo space and the area to the rear of the truck. Whatever the vehicle type, and without any need for cabling, the driver can check whether

his dump truck has completely emptied or monitor the docking process in the loading bay.

In line with its slogan 'Keep it running', TruckServices has also come up with a practical, innovative tool in the form of a brake disc gauge that enables workshop technicians to check whether a brake disc needs replacing without having to remove the wheel. Visitors to the booth can take home a free example of this handy tool (see also page 15).

We look forward to your visit!

COMPACT TRAINING MODELS

Knorr-Bremse has developed a new training model for heavy-duty trucks that provides the latest information about the TEBS G2 electronic braking system in compact form. Training not only includes a more detailed introduction to the TEBS G2 system and practical diagnostic work on several TEBS G2s installed in a trailer vehicle – trainees also learn about the pneumatic and electrical installation of TEBS G2 in heavy-duty trailers. Alltrucks partners are also offered training in "Multi-trailer EBS". In addition to in-depth training on Knorr-Bremse systems, trainees are also introduced to competitors' systems, thus providing them with comprehensive multi-brand expertise in braking systems. They also save time and money by only having to attend a single training course. Detailed information on Knorr-Bremse training provisions can



be found on the Internet at www.knorr-bremsecvs.com/training. More information on Alltrucks training is available at www.alltrucks.com/trainings.

Practical exercises help participants in Knorr-Bremse training courses to polish their skills.

CLUTCH SERVO: ROBUST, LONG-LIVED, PRECISE

The Clutch Servo Longlife operates for up to four million cycles.

Knorr-Bremse is setting new standards for clutch servos: The new 'Clutch Servo

'Longlife' offers customers a longer operating life than conventional products. Currently, servos have to be replaced after approximately two million cycles, but Knorr-Bremse's 'Clutch Servo Longlife' doubles this to some four million, extending the servo's life well beyond that of many competitors. In addition, this latest clutch servo covers a large number of additional applications and can therefore be used by more customers. It is also extremely well protected against dirt, dust and oil carryover, which means it can be used in all environmental conditions, including extreme cold and ice. An animated video of the new 'Clutch Servo Longlife' can be found at www.knorr-bremseCVS.com or on Knorr-Bremse's YouTube channel.



FILTERS FROM A SINGLE SOURCE



Knorr-Bremse's expanded filter program.

Companies looking for quality filters for their vehicles need look no further than Knorr-Bremse. The Munich-based company has been producing air dryer cartridges for more than 20 years, and over 30 million have been installed in trucks and buses. Drawing on this extensive experience, the company has now expanded its filter portfolio to include air, cabin, fuel and oil filters. The robust, high-performance filters are

made of high-quality materials and are available for virtually all European truck and bus applications.

Distributors, workshops and fleet operators now have access to high-quality filters at attractive prices. Vehicle running costs are reduced without any concessions in terms of premium quality and safety.

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SIMPLE CHECK OF BRAKE DISC THICKNESS

TruckServices has developed a practical tool for checking the thickness of a brake disc without having to take off the wheel. It has two scales for different disc sizes and two categories: 'OK' indicates that the thickness is still acceptable, while 'Please check' means a more precise check using a caliper gauge should be undertaken. The tool can be used on brake discs measuring

between 17.5 and 22.5 inches. It is easy to use and can be used both in the workshop and by the driver himself. The first examples of the new gauge are available exclusively to guests of Knorr-Bremse TruckServices at the Automechanika trade fair in Frankfurt from September 13 to 17, 2016.



The new tool is being handed out as a free gift at the Automechanika trade fair.

SERVICE AND PRODUCT NEWS

- Pressure Modulator Valves (PMV) for ABS and EBS
Doc. No.: Y240498_EN_000
- Changes to Park/Shunt Valves AE437x
Doc. No.: Y242382_EN_000
- Genuine Remanufactured Trailer Brake Calipers
Doc. No.: Y243570_EN_000
- Changes to Knorr-Bremse brake disc portfolio
Doc. No.: Y238017_EN_000
- Premium Desiccant Cartridge portfolio from Knorr-Bremse
Doc. No.: Y231204_EN_000
- Replacement of Relay Modulator Valve II32614
Doc. No.: Y221217_EN_000
- Changes in the Knorr-Bremse Brake Pad Kit Portfolio
Doc. No.: Y236088_EN_000

The documents can be downloaded from www.knorr-bremseCVS.com



KNORR-BREMSE

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Thank you.

11 WINS IN SUCCESSION!

Every day, the quality of our systems is put to the test on the roads. Which is why we are delighted to receive an accolade from the people who actually use them – yourselves! For the 11th time in succession we have found ourselves on the winners' podium as Best Brand in the 'Brakes' category of the commercial vehicle sector. Thank you! | www.knorr-bremseCVS.com |



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