

trailer world

The customer magazine of BPW

Issue One 2008



What a blast!

Satisfying the hunger for steel **Page 6**



Dear readers,

Steel not only heats up the world's blast furnaces, roll stands and presses but is also firing up the tempers of dealers, transporters and manufacturers.

This material is the basis for growth in developing countries such as China or India just as much as in Europe. The transport industry is profiting from this, expanding its capacity and continuing to demand high-quality axles and suspension systems "made by BPW".

We have coped well with increasing demand for axles and suspension systems. It is understandable that our customers place very high expectations on us as the European market leader. Investments running at 33 m Euros have been principally directed towards expanding capacity. In 2008 and 2009, this investment volume will be supplemented by another 70 m Euros. The objective: Building 560,000 heavy axles for our customers in 2008.

We're observing the markets and we're there where our customers are. The service network in Europe has been expanded with additional subsidiaries. Since 1 January, BPW France SAS has been responsible for the French market, while BPW Benelux Sprl has been looking after the Belgian and Dutch markets. The transport and logistics industry is one of the industrial sectors enjoying the most dynamic growth all across Europe.

We are going to keep you informed about this and other topics. And remember the IAA Commercial Vehicles Exhibition is coming up in September.

We'll see you soon.

Dr. Bert Brauers
Member of the Management Board / Sales

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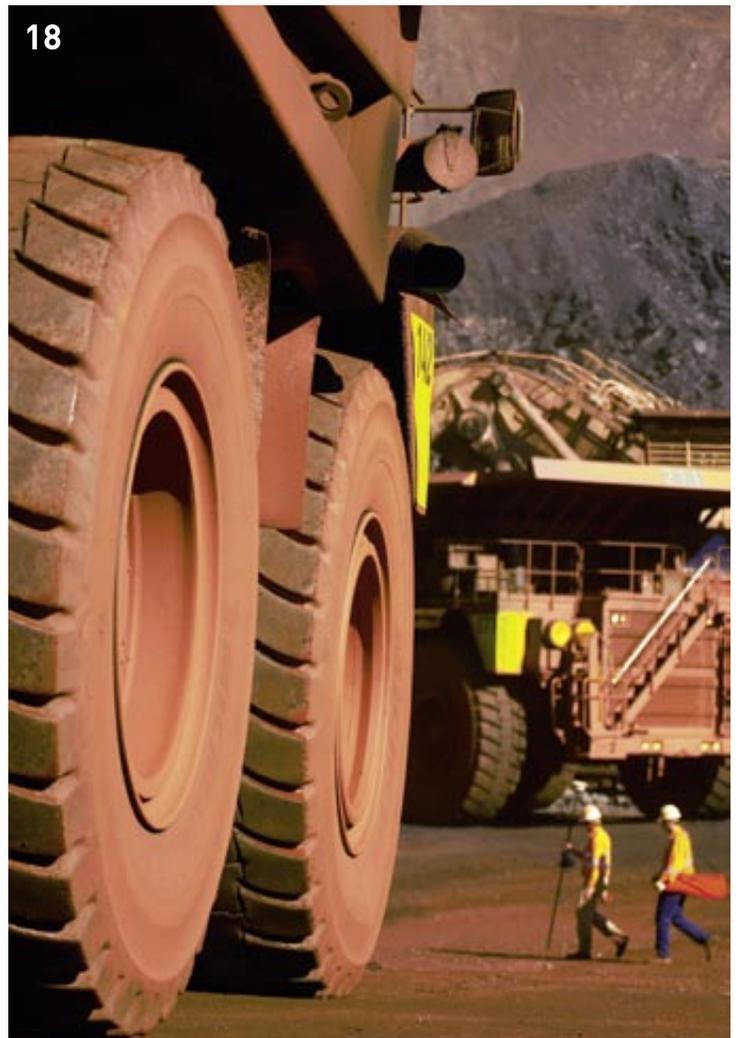


06

Photos: Lenke, Rentzsch, BHP Billiton Cover: Steve Ash



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Truck heroes from the net

■ Transport companies using the internet to search for new drivers talk of an absolute flood of applications.

The international transport company Wiedmann & Winz from the Greater Stuttgart Area has specially commissioned a web agency to design an internet portal. The aim was to find 40 qualified truck drivers. References to modern, new trucks, good maintenance, driver contests, driving courses and interesting tours aim to attract drivers to the company. Managing Director Micha A. Lege is satisfied with the results: "Up to now we have received more than 150 applications, and will be able to fill all the vacancies." No details are given about the costs of his recruiting campaign.

Markus Werries, Managing Director of Reinke International south of

Stuttgart reports of a similar experience. Drivers are particularly scarce here. Within just a few days, Werries received 50 applications for three jobs via the portal top-trucker.de, and had to remove his job advertisement from the net again. This kind of echo is far better than using the newspapers or the depot noticeboard. Bernd Albrecht, founder and boss of top-trucker.de, reports that initial contact is frequently prompted by wives and girlfriends: "Life partners still have a major influence on the choice of job." After all, the women want their boyfriends or husbands to come home quickly and in a satisfied state of mind.

Cool, heroic visuals and music pumping out the testosterone:
www.top40-actrosfahrer-gesucht.de

Sailing freight



■ In the trailer world interview of the last issue, Beluga boss Niels Stolberg announced the christening of "MS Beluga SkySails", the world's first freighter to be operated with an additional towing kite propulsion system. Meanwhile Captain Lutz Heldt (57) is back home from his maiden voyage with the innovative heavy goods freighter. "It's an incredible feeling when a 160 square meter kite flies aft of the ship", says Heldt. Already at windforce 5, the towing kite pulled the ship

with a force of five tons, relieving the ship's engines by around 20%. Projected to a full day's operations, this corresponds to fuel savings of 2.5 tons and thus more than 1,000 US\$ per day. In future, kites will be used with a sailing surface of 600 square metres, bringing even greater savings in terms of costs and emissions.

Record turnover

■ BPW Bergische Achsen Kommanditgesellschaft, Wiehl/Germany achieved record turnover in the financial year 2007 of more than € 940 million. BPW sold altogether more than 475,000 heavy-duty axles and trailer chassis systems, two-thirds of which on the European market, thus expanding its leading position in Europe. The turnover

growth of 27% compared to last year results from the growing demand from commercial vehicle manufacturers who are profiting from the increase in international goods transport. Sales increased particularly in East Europe and in the Near and Middle East. BPW already generates more than two thirds (67%) of its turnover abroad – growth of 2% compared to 2006.

Growth was driven by product innovations such as the axle generation ECO Plus 2. BPW has also expanded its international service network and sales organization. "Growth based on uncompromising quality in products and service: this strategy has paid off completely in 2007", says Christian Peter Kotz, personally liable managing partner.

3,316,452

kilometres long is India's road network. Highways only account for 2%. Germany has a similar share with 12,200 km highways compared to 630,000 road kilometres altogether. Sources: NHAI, German Federal Statistics Office

Exhibition Calendar 2008

- 01.–03.04.
Carrosserie Vakdagen 2008
NL – Hardenberg
- 15.–17.04.
Commercial Vehicle Exhibition
GB – NEC/ Birmingham
- 22.–26.04. **COMTRANS**
Rus – Moscow
- 28.–29.04. **BTF Kongress**
S – Strömstad
- 01.–03.05. **Ag-Fest Rural**
Aus – Launceston
- 08.–10.05.
International Trailer Truck & Equipment Show
Aus – Melbourne, VIC
- 04.–08.06. **AUTOTEC**
CZ – Brno
- 17.–21.06.
Buildings Technics and Technology
Rus – Moscow
- 09.08. **Power Truck Show**
Fin – Alahärma
- 19.–21.08.
AgQuip Agricultural Exhibition
Aus – Gunnedah, NSW
- 20.–23.08. **Elmia Lastbil**
S – Jönköping
- 27.–28.08. **Dowerin GWN Machinery Field Days**
Aus – Dowerin, WA
- 28.–30.08. **FinnMetko 2008**
Fin – Jämsänkoski
- 29.08.–07.09. **Caravan Salon**
D – Düsseldorf
- 02.09.–04.09. **Heritage AG Show**
Aus – Toowoomba, QLD
- 03.–04.09.
Newdegate Machinery Field Days
Aus – Newdegate, WA
- 11.–14.09. **Elmia Husvagn**
S – Jönköping
- 16.–21.09. **automechanica**
D – Frankfurt
- 23.09.–25.09. **Henty Machinery**
Aus – Henty, NSW
- 24.09.–02.10. **IAA Nutzfahrzeuge**
D – Hanover

»There is steel flowing in his veins.«

“Business India” about Lakshmi Mittal

Playing with logistics

■ Hamburg Chamber of Skilled Crafts is using the free PC game “Logistics Master” (www.logistik-lernen-hamburg.de) to attract the younger generation. The task involved in the game is to coordinate incoming goods for on-going transport. Time, destination, storage area and energy are given as defaults. On a transshipment yard, the players steer the goods to ships, airplanes, trains or trucks.

Smooth journeys



■ Sassenberg in Münsterland/ Germany is where caravans and motor homes by LMC and TEC are made; the brands also belong to the HYMER Group, which we featured in the last issue of trailer world. This year LMC is launching its special model programme “Relax Edition” with two new caravans and motor homes offering even more extensive standard features.

Uwe Kotz: 40th jubilee



40 trees with photos from 40 years: Uwe Kotz's present.

■ On 1 March, Uwe Kotz, personally liable partner of BPW, celebrated his 40th jubilee. Numerous colleagues and companions took up the invitation to come to Wiehl to offer Uwe Kotz their congratulations. In his speech, Christian Peter Kotz honoured his brother's achievements and successes, thanking him for the trustworthy basis of their cooperation. The continued positive development of the company illustrates just how

successful this has been, right up to the present day. The trailer-world editorial team congratulates Uwe Kotz for his successful, responsible involvement in 40 years of BPW and would like to take this opportunity to wish him every future success and always the right instinct in all entrepreneurial decisions.

Radioing stackers

■ Foundry M. Busch now uses vehicle computers for a smoother materials flow.

The stackers from the BPW subsidiary have a barcode scanner and an RFID reader to reduce the downtimes of production machinery. “This makes our stocks transparent and provides real-time data for production planning”, says Robert Schöne, Head of Corporate Organization/IT at M. Busch.

100th birthday of Fritz Kotz

■ Hans Friedrich Karl (called Fritz) Kotz was born on 3 May 1908 at Wiehl. He was involved in an early stage in investigations into suitable axle material and conical roller bearings in the SKF laboratories, cooperation partner of BPW already since 1923.

Fritz Kotz generated his first BPW order as field worker in 1932 and officially joined the company twelve months later. On the death of his father, Fritz Kotz took over the management of the company in 1948. Together with reconstruction and modernization of the company, he also continued with his father's social measures, such as the construction of worker housing. In 1968, Kotz donated a memorial fund for rewarding outstanding achievements in the balance of nature and technology. Fritz Kotz died on 21 January 1980.





A really big blast

In Germany's steel kitchens there are also steel chefs. When manufacturing their products they use carefully selected raw materials, process the ingredients according to their own recipes and maintain the reputation of the establishment at the highest level.

Salzgitter Flachstahl GmbH is one such location for specialists. In the fine steel cuisine of Lower Saxony there are no mass-produced items from the far East, but quality goods for discriminating customers. Dr. Sebastian Bross is one of the 'chefs de cuisine' here. Like many of his peers, the 30-year-old has his engineering degree on his business card. For the Head of Marketing, mechanical engineering and physical metallurgy form the basis for a business that is becoming ever more sophisticated in terms of technology and logistics. "Customers are interested in the component, not the material that it is made of," says Bross, describing the demands placed on the work of the engineer, which lies behind the manufacturing process. Production processes, ways and means of loading and safety aspects are the deciding factors for the material properties demanded, and hence for the steel used for the component.

There are a wide variety of steel types available. The product range stretches from black hot-rolled wide strip through organically coated cold-rolled thin sheet. For higher-quality steels such as those produced by Salzgitter Flachstahl, it is necessary to be able to reproduce the process control across all units. Products include 1.6-metre wide steel coils weighing up to 32 tonnes, known as mother coils, which in the course of further machining, some of which is carried out by Stahl-Service-Center, are split, are cut and thus made up into useful preliminary products. Depending on the quality, the 1.6-kilometre long rolls of steel are turned into cars, refrigerators or hubcaps for the new BPW ECO plus 2. →

Photo: Lenke

“The strip from which these hubcaps used to be produced was 2.75 mm thick,” explains Rolf-Konrad Hoffmann (53). “Today a 1.5 mm dual-phase steel is entirely adequate.” The Purchasing Manager responsible for steel and axle profiles has worked for BPW for 32 years, and he knows the steel business inside out. Whereas highly stressed parts of the vehicle such as air suspension hanger brackets are produced from micro-alloyed steels, softer steels such as DD11 deep-drawing steel can be used in other areas. “Lasts for ever,” is steel expert Hoffmann’s response to a question about the lifespan of the BPW hubcap. The use of thinner, high-strength steels in vehicle construction has other positive side effects: Because of the weight reduction, a greater payload can be carried and CO2 emissions are lower.

»Workability has become the triumph of steel.«



Dr. Sebastian Bross (38) doesn't want to sell just anything. For Salzgitter Flachstahl he has found the “steel specialities” niche.

Top-quality steels from the steel kitchen in Salzgitter, such as the dual-phase steel DP600, stretch the laws of physics to the limit. The material can be worked, and in the process it develops excellent strength in the finished component. The result is, for example, optimum impact properties such as are sought after in car construction. “Workability has become the triumph of steel,” explains marketing boss Bross, and points out another outstanding property: “At the end of the process there is a fully recyclable product.”

Around 10,000 tonnes of steel are supplied by Salzgitter AG, the group of which Salzgitter Flachstahl GmbH is a part, to BPW every year. “Our market is the niche,” explains Bross. Producing three million tonnes of flat steel per year, Salzgitter supplies specialities for industry, “delicacies” such as S700MC, steels with excellent machining and material properties. “The product is not everything,” says Salzgitter Flachstahl Company Secretary Dr. Jürgen Harland. “You also have to be able to present the processes as outstanding. For example, when it comes to delivering a steel coil to the other end of the world with perfect precision.”

Because logistics costs play an ever more important role in the highly competitive steel market, Salzgitter has fundamentally restructured its processes in the last two years. Since the start of the year the former transport and shipping department has borne the name usual among logisticians: Logistics & Supply Chain Management. Together with Gerhard Kosubek, the Head of Shipping Control, and with dispatchers and schedulers on behalf of the customers, the processes were closely examined and turned on their heads.

In Dr. Jürgen Harland, the team has gained a USP: today the company is probably the first logistics operation that also produces steel. The key words are volume flexibility in the timeline. In a production facility with over 90 % capacity utilisation, it is usually difficult to respond to customer requirements that are changed at short notice. “You simply can't do that by parcel post,” emphasises Harland.



On this hot-rolled strip mill the cast and pre-rolled slabs are rolled into long steel strips, and then finally rolled up into coils.

In order to achieve greater flexibility, the managers at Salzgitter started two years ago to consolidate processes and to introduce logistics skills back in to the company. “Logis-

tics is a key competence today,” says Harland, summing up.

From Transport to Supply Chain Management

The programme: amalgamation, rationalisation, standardisation. 13 “Master Hauliers” are currently employed for shipping in Germany and the rest of Europe. Each Master is responsible for a closely defined region. As the extended arm of the shipping department of Salzgitter Flachstahl GmbH, they transport the steel products as far as the customer’s storage facility. Each Master takes the leading role for “his relationships”.

In order to prevent chaos when loading, collection orders are now systematically distributed. “The haulier has to book himself a time slot via the Internet,” says shipping boss Gerhard Kosubek, explaining the principle. Any driver who misses the free two-hour

time slot can park his truck on the service area outside Gate 6 and take it easy in the driver’s lounge for a while. The web-based time slot control system prevents a situation that was still arising on some days two years ago between 11 am and 4 pm at the main gate to the Salzgitter works site. Up to 50 heavy lorries were tailed back as far as the motorway slip road, obstructing the traffic.

Check-in in nine languages

The military precision of Gerhard Kosubek’s synchronised traffic movements makes it possible to close gates, and hence “holes in the fence”. Up to 300 lorries now go through the barrier every day at Gate 6, the new control centre for incoming and outgoing freight vehicles.

“Every driver is given a schedule number,” says Kosubek, explaining the system. They use it like a key. After check-in at the →

Much in demand worldwide

■ The steel industry is booming. As a result of advances and industrialisation, the need to catch up in the fast-developing nations and in Asia is leading to the frequently cited “hunger for steel”. China alone boosted the global steel industry by 17.7 percent in 2007. Russia, India and Brazil also saw increases. As a result the demand for raw materials such as iron ore and scrap is growing. The experts agree that steel will also remain expensive in the longer term. The steel industry in this country, employing around 92,000 people, achieved record sales amounting to 45 million euros.



No tailback, no rush: Check-in at Gate 6, the new traffic control centre.



The gate pass is scanned, the vehicle is weighed.

control centre, the computer issues shipping papers and a gate pass equipped with a bar-code. Using this the driver scans himself in at the weighbridge. If everything is OK, the green light comes on and the barrier opens

automatically. There are no recognition problems. The sign-in terminals in the modern control centre can handle nine languages. And they also explain to the driver what personal safety equipment he has to have on board, and what loading instructions are to be followed.

ing hall, in which thousands of steel coils are waiting to be despatched. With a quiet hum, the Demag Coil Master moves across the storage area by remote control. The crane can lift up to 40 tonnes with its electromagnet, and unload it over the coil cradle of the semi-trailer at one of the 12 loading bays.

It is an ever-recurring ritual, generated by the works regulations when loading. Without a safety helmet on his head, the driver doesn't even get through the roller shutter, which is immediately closed again to protect the valuable steel coils. On reaching the loading bay just a few metres away, the driver slides back the tarpaulin cover of his semi-trailer, loads, chocks and lashes down his 30 tonnes of freight, and then drives forward to the end of the hall with the tarpaulin open. Only when a ceiling camera has photographed the load the driver can close the tarpaulin and leave the VH 400. "Ever since we have been making a

The steel specialists

■ Salzgitter Flachstahl is the biggest steel subsidiary in the Salzgitter-Group. In 2007 almost 4,500 employees produced around 4.6 million tonnes of crude steel, 3 million tonnes of which was flat steel. Last year Salzgitter's steel specialists from Lower Saxony achieved sales amounting 2.5 billion euros (2006: 2.27 billion). Among the most important customers were the steel trade, vehicle manufacturers, along with their suppliers, cold-rollers, tube and large tube manufacturers, and the construction industry.

White, glistening jewels of industrial production

What may be OK driving in under the eyes of Kosubek's shipping and safety people, could take you under certain circumstances onto the "clearance truck park" when leaving. Because if you weigh more than 40 tonnes with coil on the back, you need a special approval, which permits transporters up to a maximum of 44 tonnes.

The destination of many collectors is the VH 400, the 400-metre long, heated load-

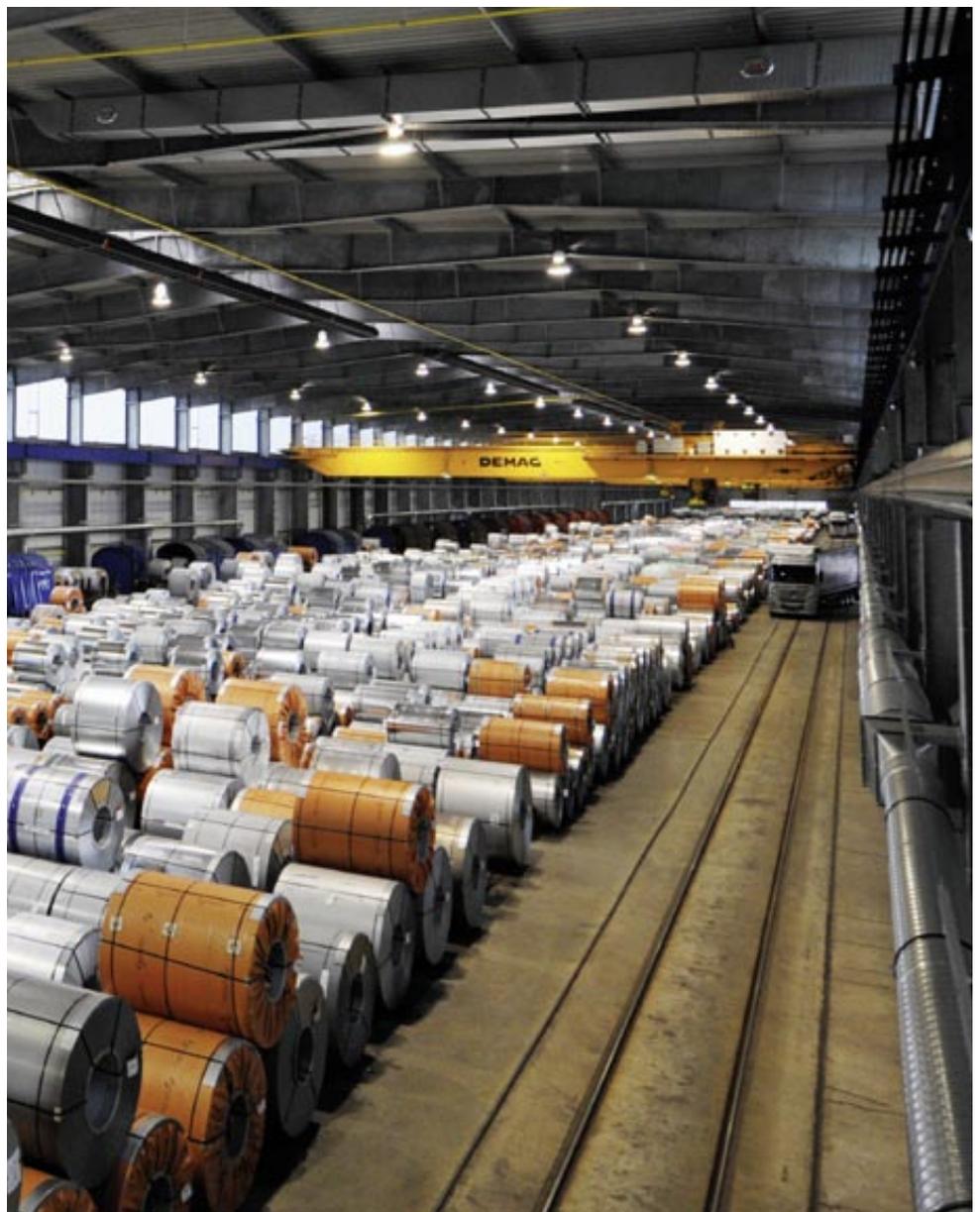
Photos: Pusch

photographic record of the way loads are secured, we have had no more problems with frayed straps or loose attachments,” says shipping boss Kosubek.

The chartered mechanical engineer has worked for Salzgitter for 44 years, and today he is the ‘eminence grise’ of operational logistics management in the steel group. When he drives his silver E-Class Mercedes across the works site under the gaze of astonished visitors, doors and gates open up as if by magic. Codes that are used to describe the production shops on the large works site are part of everyday language. The coils for the VH 400 come by rail on a shuttle from U1, as the production shop is known. They cannot be collected straight away: the coils of hot-rolled steel take three days to cool down from 700 degrees to a temperature at which nobody is going to burn their fingers.

High demands on the reliability of lorries and trains

Up to 60,000 steel coils rest in the centre bay of the shipping warehouse, surrounded by railway tracks and temperature-controlled by means of infrared radiators. Glistening white or shimmering blue jewels of industrial production, which can easily be worth over 30,000 Euros each. Anyone who moves them has to pick them up with velvet gloves so that there are no scratches, which the customer would complain about straight away. Steel coils, which are dispatched throughout Europe, are packed in orange film to protect the sensitive material from wind and weather. Because air humidity is toxic. →



Only in the warm, protected warehouse are the coils carefully loaded onto the trailers.

Above 70 % some steels start to corrode. “If you drive out of the warehouse without a tarpaulin you could well have white rust on the coils by the time you reach the works gate,” says Kosubek.

60 percent of the goods are transported by road and 40 percent by rail. The branch canal to the works harbour does not achieve the frequency that would be appropriate for a triple-mode transport approach. The fulfilment of the desire to move more and more by rail depends on the efficiency and reliability of the carrier, as the steel logistics people make clear. So when the logistics processes were redesigned there were also managers from Railion at the table, in order to be able to

»In the 2007 customer satisfaction study we made a tremendous leap forward.«

satisfy the high demands of Salzgitter’s logisticians. Right at the top of the specifications for the freight subsidiary of Deutsche Bahn were timetabled rail movements with individual wagon tracking.

One aim of the systematic integration of steel transportation at Salzgitter is to achieve a better information capability in relation to the customer. Because behind every tonne of steel that leaves the works there is an order and hence a company that cannot afford any loss of production. “The software cannot do it all on its own,” says Harland.

It’s about management systems that keep everyone involved equally well informed.”

In several phases of the “Top Operating Process” (TOP), Harland and his crew have initiated a logistics offensive in order to optimise volume and value flows. The outcome is evident not only in the complete monitoring of the processes but also in terms of higher speed and better delivery quality. Whereas the throughput times used to be around 60 hours, today it takes just about four hours from generating the order through to the transport note to the steel haulier. Delivery reliability has been improved by an amazing 20 percentage points, to 97 percent. “In the 2007 customer satisfaction study we made a tremendous leap forward,” says Harland with delight.

Logistics as a company-wide function is thus turning into a sales argument par excellence at Salzgitter Flachstahl. The next phase in the TOP process will be initiated this year: the establishment of an e-service platform, by means of which it will be possible to achieve paperless control and monitoring of processes. “Machines maintain themselves,” explains Harland, getting to the heart of the project: “People should be there to manage exceptions, not the routine.” In the end the web-based solution is intended to make steel production transparent for the customer, right down to the level of the individual item. (rp)



Dr. Jürgen Harland (47) has gradually developed Salzgitter Flachstahl into a logistics company that also produces steel.



»We don't just want to carry steel from A to B.«

Lehnkering Steel Transport & Services GmbH, Salzgitter, is one of the five largest steel logistics operations in Germany. As one of 13 selected master hauliers, the specialists at Lehnkering ensure that the shipping bays of Salzgitter Flachstahl do not overflow. trailer world spoke to Manfred Hunold, spokesperson for the Executive Board at Lehnkering Steel Transport & Services, about the special challenges of not merely moving all different types of steel from A to B without any scratches or dents, but of offering steel producers complete logistics concepts. →



trailer world: Mr Hunold, first of all, could you tell us how you become a master haulier for Salzgitter Flachstahl?

Hunold: The steel producer issues an invitation to tender for certain relationships, to which selected logistics service providers can apply. But the requirements are stringent: They not only have to handle large volumes but also provide the special vehicles necessary for the purpose. Steel is a demanding load – but despite that the competition for tenders is very intense. When you have won a relationship, you are the “master” for this part of the journey.

factor. In that respect we are very competitive despite a high level of investment, because as the name of our company implies, we specialise exclusively in the logistics associated with steel. It may well be that our expertise in this market is what primarily made Lehnkering one of the master hauliers for Salzgitter Flachstahl.

trailer world: Could you explain this special expertise to us in a little more detail?

Hunold: We don't just want to carry steel from A to B. Our aim is to offer our customers transport plus one or two additional

inventory management. Nor do we balk at preparing or processing steel right on the customer's premises. In addition to which we can network as a logistics provider with our customers' IT systems, which makes us an interesting proposition!

»Nor do we balk at preparing or processing steel right on the customer's premises.«

trailer world: What helped Lehnkering to become a master haulier?

Hunold: A combination of many strengths. Price is and always has been a very important

services. These might include, for example, packaging work on the customer's premises, internal works transport or warehousing and transshipment work, as well as complete

Lehnkering Steel Transport & Services GmbH

■ Lehnkering is one of the major logistics service providers in the key chemical and steel industries. The Lehnkering Steel Transport & Services GmbH operates warehouses and outdoor storage facilities at various locations in Germany, having at its disposal 100 tractors, 130 semitrailers with coil supports, as well as 29 special semitrailers. In addition to transportation, the services also include complex steel storage logistics projects and the organisation of complete transport chains.

trailer world: Getting back to the vehicle fleet – what does a haulier need to transport steel successfully?

for cooperation. The sticking points tend to be primarily the lack of terminals for transshipment from road to rail and vice versa.

»We view the railway less as a competitor, and prefer to look for cooperation.«

Hunold: No two steels are alike, even if you might at first think of the typical steel coils. Not only do we transport coils, but also extra-long steel girders, sheet piling, steel tube or slabs – and all these products require special vehicles: strengthened axles, extra-long or extra-wide trailers, sloping loaders or extending semis – we are certain to have the right vehicle for everything. Nor do we use these vehicles merely for Salzgitter Flachstahl, but also for other major steel producers such as Hoesch or ThyssenKrupp.

trailer world: So far we have only spoken about road vehicles – do you also use other modes of transport?

Hunold: We transport steel exclusively by road, and in fact predominantly from Salzgitter and the Ruhr to the centres of the German metal processing industry, and also to the ports and to neighbouring countries such as Poland, France or the Benelux countries.

trailer world: Deutsche Bahn has just announced that it will be acquiring 2,400 new rail wagons for the transport of steel alone by 2009. Won't that strengthen the competition from the railways?

Hunold: As we see it, a lorry is still more flexible than the railway. Apart from which, of course, rail shipments require both the sender and the recipient to have a direct rail connection. Even so, we view the railway less as a competitor, and prefer to look

Despite that we are currently working on schemes for inter-modal traffic.

trailer world: Every lorry needs a driver – and they are in very short supply at the moment in Germany ...

Hunold: ... and above all for our steel transporters they have to be highly qualified. They are an important link in a highly complex logistics chain, and nothing can be allowed to go wrong with the transport. Even if the trailer were to be overloaded by one kilogramme as it left the steel producer, the journey would be over for the time being. We train our drivers ourselves and we have a relationship with the employment agencies that goes back many years, enabling us to cover our need for drivers. (bo)

→ Info More information on the topic of Lehnkering can be found on the internet at <http://www.lehnkering.com>



Personal details

Since 1973 Manfred Hunold (born in 1946) works in executive positions in the logistics industry.

Since December 2007 he is the spokesman of the Managing Board of Lehnkering Steel Transport & Services GmbH.

THE DRIVER FEAC

30 percent of Germany's professional drivers will be retiring in the next few years and not enough drivers are being recruited to fill their places. At the Wiehl Forum, representatives from 160 haulage companies met to discuss ways out of the dilemma.

Dr. Bert Brauers, Head of Sales at BPW Bergische Achsen, hit the nail on the head: „Trailers, trucks and steel are becoming scarcer than ever, but the scarcest resource at the moment is truck drivers.“ In doing so, he also summed up the slogan for the 8th Wiehl Forum, namely “Complex Logistics – Human Beings as the Key Factor”. Mr. Brauers and Uwe Kotz, Managing Partner of BPW, welcomed representatives from about 160 haulage and transport companies to Wiehl last November. This was a record attendance for the traditional customer event organised by the axle manufacturer based in the Bergisches Land region of North Rhine-Westphalia in Germany. Those present included Michael Kubenz, President of the German Haul-



Full house at BPW: No empty chairs in the conference room.

age and Logistics Association (Deutscher Speditions- und Logistikverband, DSLV) and Klaus-Peter Röskes, Vice President of the German Goods Traffic, Logistics and Waste Disposal Association (Bundesverband Güterverkehr Logistik und Entsorgung, BGL).

100,000 driver vacancies soon

Attracting drivers to the industry and training them also represented key topics at

the Wiehl Forum. The working time directive that came into force in April 2006 is itself responsible for presenting Germany's transport companies with a demand for almost 50,000 extra drivers, estimates Mr. Kubenz. The problem is not likely to go away. Quite the reverse. “The average age is rising,” observed Klaus-Peter Röskes, sounding the alarm. “30 percent of drivers currently at the wheel will be leaving the industry over the next few years,” confirmed Werner Gockeln, Managing Director of the German Road Traffic Asso-

TORR

ciation (SVG Bundeszentralgenossenschaft). This means another 45,000 drivers will be required every year to make up the numbers.

In view of the generally modest earnings prospects and the poor image of driving as a profession, many companies are going to experience problems in meeting their needs for qualified drivers, forecast Karl-Heinz Hüßkes, public relations officer of the Association of German Professional Drivers (Bund Deutscher Berufskraftfahrer). “Set this against the fact that only about 900 young drivers have completed the three-year professional



BPW boss Uwe Kotz welcomed many of the industry’s movers and shakers to Wiehl.

driver training course so far.” In view of this, it will be more advantageous for companies to train the drivers themselves, emphasised Mr. Gockeln and Mr. Röskes. Other companies may take other approaches to train their young drivers. Jürgen Hachenberg, CEO of Fiege/uniserv, reported on one company’s driver academy that trains truck drivers on 6-month courses.

Significant additional costs

The second topic at the Wiehl Forum concerned the additional costs being imposed on transport companies due to changes in the law governing driving personnel introduced during 2006 and 2007. Prof. Dr. Sebastian Kummer (Vienna Business University) and the President of the German Haulage and Logistics Association Michael Kubenz estimated these additional costs as amounting to between 6 and 11 percent, depending on the transport type. However, some strategies are at the disposal of logistics and transport companies in order to counteract these charges. These include, for example, reducing waiting times during loading and unloading by improving organisational procedures



Prof. Dr. Sebastian Kummer, Michael Kubenz and the discussion leader, Björn Helmke, were in agreement on their review of the EU Driver Directive.

or by introducing shift working with the objective of spreading fixed costs. Detlev Krill, head of driver training at Spedition Offergeld, offered a valuable tip. It is essential to train drivers in using the digital tachograph. Otherwise, transport companies will run the risk of wasting valuable driving time because of incorrect entries.

BPW will be holding the 9th Wiehl Forum in two years’ time. Who knows what will be moving the transport world then... ○



Red Gold

With exports valued at 16 billion dollars a year, Australia is the largest iron ore exporter in the world.

Compared to oil, gold or precious gems, high-grade iron ore might seem like a second cousin. After all, the entire world still spends more money looking for and mining gold than any other mineral source.

However, the simple fact is that without iron ore, our modern civilization would have never developed. Without iron ore there would be no China boom, no housing boom or for that matter – no global boom at all.

Australia is one of the world's leading producers of iron ore which is used partly in the domestic iron and steel industry but is largely exported to countries such as Japan, South Korea, Taiwan and China. This red gold is in fact Australia's second highest export earner returning \$16 billion to the domestic economy every year.

Australia plays its part

The world's economic growth is increasingly dependant on the millions of tonnes of iron ore that Australia produces, the most extensive of the high grade deposits are those found at Mount Tom Price, Mount Whaleback, Mount Newman and the Robe River area. Iron ore deposits are widely distributed throughout Australia with extensive deposits being found from as far South as Tasmania to the northern regions in Western Australia and Queensland.

The country's two main Iron Ore mining giants are BHP Billiton and Rio Tinto. BHP Billiton Iron Ore is one of the world's leading suppliers of iron ore with approximately 2,000 employees and 6,000 contractors employed in operations which include seven mine sites, port and processing facilities, nearly 1,000 kilometres of railway track and a rail fleet comprising over 90 locomotives with some 4,000 ore wagons. BHP Billiton is currently embarking on several major growth projects for both their mines and ports facilities, laying the future foundations to increase their iron ore capacity in order to meet the insatiable demands of the global market.

Today's need for iron ore is strongly correlated to the growth in Chinese steel production. Since 2002 the Chinese market has well and truly absorbed all related capacity in the global iron ore production system and is expected to continue driving future market growth. BPH Billiton Iron Ore moves more than 100 million tonnes per annum to steel mills in Asia, Europe and Australia with Western Australia being the country's largest export earner.

The company has seven mining operations in the Pilbara region of Western Australia which includes the biggest single-pit, open-cut ore mine in the world – the mas-

sive Mt. Whaleback mine. Port Hedland and Newman are the major Pilbara towns with iron ore operations.

Endless supply of the red gold

The Ore is mined using the open-cut method. This involves drilling holes into the pit floor and inserting explosives to break up the solid rock. The ore at Mt. Whaleback is of an exceptionally high grade, containing up to 68 percent iron. After blasting, excavators scoop up the mineral and load it onto haul trucks to be transported to the primary →



Giant BHP Billiton iron ore dump trucks drive through the red moonscape of the mines.



Each 92 gross tonne side tipping roadtrain moves iron ore on a continuous 24 hour shift, 1,600 kilometres each day.

crusher. The crusher breaks down the boulders of up to 1.5 metres in diameter into lumps about the size of a football. It is then transferred to a secondary crusher where it is broken down into grapefruit-sized pieces.

Rio Tinto consolidates their global position

As for Rio Tinto it is a leading international mining group headquartered in the United Kingdom, combining Rio Tinto plc, a London listed company, and Rio Tinto Limited, which is listed on the Australian Securities Exchange. Rio Tinto's business is finding, mining, and processing mineral resources. Major products are aluminum, copper, diamonds, energy (coal and uranium), gold, industrial minerals (borax, titanium dioxide, salt, talc) and iron ore. Activities span the world but are strongly represented in Australia and North America with significant businesses in South America, Asia, Europe and southern Africa.

Rio Tinto is set to purchase three new 250,000 deadweight tonne ore carriers to

transport iron ore from its mines in the Pilbara in Western Australia (and potentially from Simandou in Guinea) to customers in China and elsewhere. The Group has also reserved rights on another two vessels of similar size. The vessels, to be built by Namura Shipyards in Japan and delivered from late 2012, will play a critical role in consolidating Rio Tinto Iron Ore's leadership position in the global market. They will help Rio Tinto build upon its natural freight advantage in Asian exports.

China's iron ore imports have grown substantially in recent years and are forecast to continue to grow strongly with the potential to more than double post 2010. To maintain and increase its share of this growth, Rio Tinto Iron Ore is expanding the capacity of its Pilbara iron ore operations to 220 million tonnes by 2009, supported by long term contracts, hybrid contracts and spot sales.

A spokesperson for the company says Rio Tinto's exceptional growth strategy in iron ore and its strong pricing outlook would allow the Group to build a conceptual pathway to treble production to over 600 million

tonnes of iron ore per annum from Australia and Guinea. "Over the past 12 months we have produced over 40% more than the next largest producer in the region."

On the local road transportation scene, running a reliable iron ore haulage business in the remote areas of Western Australia takes a special breed of operator. Especially if that operator wishes to consistently meet their customers' high tonnage targets. We met that operator on a recent field trip to Geraldton, in particular Michael Patience, who is the operations manager of Patience Bulk Haulage.

It takes patience

The company in its present state was formed in 1994 by John and Nola, however the Patience family's association with the Western Australian mining and haulage industry spans some 40 years. When the business started John, Michael and Paul all drove trucks. Having - 'been there done that' - they knew and understood the difficulties their drivers and customers face in outback areas.

»We've been running BPW gear for over 20 years and from day one they have backed our transport operation to the hilt.«

Patience general manager, Mark Edwards and operations manager, Michael Patience.



In that role with their years of one-on-one contact, the Patience family has come to know their customers personally and as such have committed to deliver a high standard and reliable service.

Specialising in only bulk haulage for the mining, construction, civil and agricultural sectors has also helped the company retain their long time relationship with their clientele. But it is in fact Patience's work ethic that has secured the longevity of the company's contracts, which can only be described as non-stop operations.



The Roadwest built Patience roadtrains are seen in constant action on Western Australian highways and outback dirt roads.

Their latest venture involves twelve Roadwest Transport built 27.5 metre longside tipping 'pocket' road trains. Each of the 92 tonne gross units is engaged in carting iron ore on a continuous 24 hour shift, 1600 kilometres a day cycle. Keeping the trains on the road day and night presents some formidable challenges, all of which as Michael says, are fully catered for. "Service is in fact our hallmark. If we don't think we can do the job properly, we won't do it," he said.

As with all their undertakings, Patience has put in place 'known constants' such as their fully trained and highly regarded local driving team, specific truck and trailer equipment brands and well documented, proven maintenance procedures. "We had Roadwest supply their Hardox constructed side tippers with the new BPW ECO Plus axles. A combination that we know will get the job done to support the reliability of service we have become noted for," said Michael.

Michael also stressed the importance of having both a state-of-the-art fleet and the loyal back-up support from their suppliers saying, "Transport has become a hi-tech

business. Our trucks are fitted with the latest in electronic devices so we can keep track of our on-road movements, easily adjust payloads and assess fuel and engine performance. All that and more so we can deliver a maximum rate of efficiency and safety."

BPW Innovation wins out

And as for his suppliers, Michael says their joint relationships couldn't be better. "The Lombardi's, who own Roadwest, are as good as family. We've been running their trailer gear for over 20 years and from day one they have backed us to the hilt. If things do go wrong they fix it and quick, that's all you can ask for. As for the trailers, both Roadwest Transport and BPW are constantly improving their product designs. I call it the 'evolution-of-the-species'."

Without that continual innovation plus both of these companies' fabulous back-up support, we wouldn't be able to live up to our motto of... just make it happen." (ap) 

→ Info For more information about BPW's activities in Australia, please refer to the website <http://www.transpec.com.au/bpw/>



Personal details

Very shortly after completing his automotive engineering course in Ulm, the time-served auto mechanic Thomas Rieger (44) started designing and developing slag transporters. He has been working at Kirow in Ulm for almost 12 years.

Clever little chap

It first saw the light of day in Ulm, but it reached full maturity in Leipzig: the SPC slag transporter. Product manager Thomas Rieger and his team were smart enough to use this split to extend the product range of Kirow, the heavy engineering manufacturer.

There are animal transporters for live animals, concrete mixers for fresh concrete and tankers for liquids. However unusual the load, each has its own particular transport solution. And that also applies to hot slag, at a temperature far in excess of 1,000° C, which accumulates at the steel works and needs to be disposed of. To carry this away, Saxon heavy engineering manufacturer Kirow develops, produces and sells what are known as SPCs, or slag pot carriers. These monstrous slag pot carriers are to be found as indispensable helpers in steelworks the world over. Trouble-free steel production is dependent on their reliability.

Slag disposal in the steelworks is an undertaking not without its dangers. For one thing, liquid slag at temperatures up to 1,500° C is a load that needs sensitive handling. Its temperature level, approaching

that of molten steel, requires particularly high safety standards for man and machine. On the other hand, the spatial conditions inside steelworks are often critical and there is not always a lot of room for manoeuvring the slag pots.

Special articulated slag transporters have proven very suitable for this demanding task, and these are also to be found in the range of Kirow Leipzig. Its slag pot carriers are always adapted precisely to suit the application at the location in question. They are extremely manoeuvrable despite their considerable dimensions, and are considered to be safe to operate thanks to a control system with programmable memory, which does not permit any recognisable malfunctions.

One of the highly popular Kirow models is called the SPC 80. These giants already weigh 75 tonnes when empty, and can carry over 80 tonnes of red-hot slag in a single load, from the steelworks to the nearest disposal site. The DSU Gesellschaft für Dienstleistungen und Umwelttechnik (Services and Environmental Technology Company) currently already has ten such transporters in use throughout Germany, and has ordered five more. Three of these mega-transporters are in service at the Krupp Mannesmann steelworks (HKM) in Duisburg.

At their Duisburg plant alone, HKM already brews up around five million tonnes of steel every year. That represents around ten percent of the unmachined steel produced in Germany. Large quantities of slag of varying quality accumulate in steel production, just like the residues in the ash pan of your fireplace at home. Approx. 800,000 tonnes of this pig iron desulphurisation slag, casting ladle slag or so-called LD-slag are disposed of by DSU on behalf of HKM every year, thus maintaining round-the-clock steel production.

Without the giant slag transporters, it would hardly be possible to cope with these quantities. The special SPV 80 transporters, five metres wide, almost as high and 13 metres long, work in a similar way to a dump truck. They take the full slag pot, place it on a platform that is clad in fire-resistant material, transport it to the slag bed and →



The SPCs carry up to 160 tonnes of hot slag.



Vital vehicle statistics

KIROW SPC 80

- L / W / H: 12.0 m / 5.5 m / 4.8 m
- Turning circle: 10 m
- Unladen weight / payload / total laden weight: 75 t / 80 t / 155 t
- Cummins diesel engine, QSM 11-360; 11.0 litres, 269 kW/360 bhp
- DANA T 40,000 transmission; powershift transmission with integrated torque converter
- Hydraulics: Bosch Rexroth und Danfoss
- Drive unit: Kessler D 101 axle (carrying capacity: 50 t)
- Load unit: BPW MZMP 2/30010-BL tandem axles (capacity: 4 x 40 t)

tip it upside down by tilting it through 180 degrees. A single pot can hold 18 to 22 cubic metres of slag without forcing the SPC 80 to its knees.

Kirow Leipzig has a wide range of platform-design slag transporters to choose from. The range stretches from 40 to 160 tonnes payload (SPC 40 to SPC 160). The Kirow slag transporters with a U-frame (SPCU) come in similar sizes and weights. This second slag transporter product line is notable for shorter turn-round times, as the pot to be picked up can be simply driven around

and the vehicle chassis does not have to be supported.

“Reliability and availability are the first priority for our customers. No vehicle operator can afford lengthy downtimes in a steelworks. That is why we set high quality standards for our products,” says Thomas Rieger, Product Manager for transport systems at Kirow Leipzig. This native of Swabia resides with a small team of 15 employees in Ulm. This is where the brains of the company work, looking far into the future and designing tomorrow’s products using CAD on their computers. Since 1996 the Ulm office has undertaken all the engineering for the articulated steelworks vehicles, and global marketing and sales for the steelworks and shipyard transporters from the house of Kirow.

Modular structure

The company HQ in Leipzig, on the other hand, functions as an extended workbench. The giants are produced in enormous workshops. Kirow’s 150-or-so employees in Leipzig take care of the considerably older mainstay of the Kirow Group: crane-construction. The long-established company has been building cranes since 1887 and, having supplied almost 5,000 railway cranes, it has achieved market leadership in this area. Today the Kirow Group builds cranes, container handling cranes and heavy-duty transporters amongst others for the railway, the construction industry, shipyards or ports, as well as for the steel industry. The separation of development plus marketing on the

»We have always relied on German manufacturers for the majority of our outsourced components in special vehicle construction. That way we know what we're getting.« Thomas Rieger

one hand from production on the other has proved effective at Kirow. The company has increased production numbers and sales year by year.

“We have always relied on German manufacturers for the majority of our outsourced components in special vehicle construction. That way we know what we’re getting,” claims Rieger. The vehicles are for the most part constructed in a modular fashion. Consistent standardisation enables the company to get by with a minimum number of components. For example, there are only two sizes for the hydro-dynamic drive systems.

Axles always in stock

It’s a similar situation with the axles. Four out of five of the non-driven axles at Kirow come from BPW. In the platform vehicle segment, BPW axles are used almost exclusively. With a 40-tonne and a 55-tonne axle from the Wiehl-based manufacturer, along with combinations of the two, Kirow covers



Kirow's technicians and engineers in Ulm work as a team to develop future transport systems for special applications.

all the weight categories in the transportation of slag. The company always keeps a few of each of these axles in stock to assist its customers by reacting rapidly in case of fire damage or defects. Also, customers can have complete axles exchanged. The fact that the sturdy BPW axles only very rarely cause crisis situations of this sort is proven by slag transporters that have already completed 40,000 to 50,000 operating hours since 1997, and are still running on their original axles. Only parts subject to wear, such as brakes, have been replaced. This excellent reliability, coupled with a high axle load and rapid

delivery capability, is the crucial argument at Kirow Leipzig in favour of axles from the Bergisch region. In addition to which there is close personal contact between Kirow and the BPW engineering department in Wiehl, as well as the BPW sales office in Potsdam, based on many years of mutual trust and collaboration. As a result of this, individual customer requirements can be smoothly and swiftly implemented.

At home anywhere in the world

Despite rising demand since 2004, Kirow can currently guarantee delivery times of between ten and twelve months. Even though every slag-carrying vehicle is individually configured and produced for the location and application in question. Kirow Leipzig delivers approx. 10 to 20 slag transporters every year. Kirow slag transporters are part of the basic equipment at almost all German steelworks. And customers in Europe, Asia and South America are increasingly choos-

ing Kirow as the basis for their operations. Along with DSU in Duisburg, the clientele includes well-known companies such as Erich Friedrich Hüttenservice (Salzgitter), Voest Alpine (Austria), Multiserv (Great Britain), Sidernet (Argentina), Posco (Korea) and Riva (Italia).

Furthermore, Kirow Leipzig also supplies its products to companies serving the steel industry worldwide. For example, a completely new steelworks is currently under construction on a green-field site in Brazil, for which Kirow is supplying not only four new SPC-class slag transporters but also three multipurpose transporters (MPWs) with wheel steering, each with a 700-tonne payload, and a gigantic mobile casting crane to carry 550 tonnes of molten pig iron. The delivery date for these is the end of 2008. The first steel pouring is due to take place there at the start of 2009 – another important milestone for Kirow. (fh)

→ Info For more information about the Kirow company, visit the website at www.kirow.de

Kirow Group

■ Today the Kirow Group includes the companies Kirow Leipzig, KE Kranbau Eberswalde AG and Kocks Krane International GmbH. All three firms specialise in the lifting and transportation of extremely heavy loads.

AWAKENED!



India's economic growth is fascinating the world. However, it is above all the country's steel sector that is stirring after six decades of slumber ...

Gautam Agarwal is in the real estate development business in India. But the money he came by – first for investing in land, and then for developing real estate – was made through the steel business. He swears by steel, and has no doubt that there is a lot of money to be made from this metal.

The Agarwal family did have a mini-steel mill once – which made steel from scrap iron using the electric arc furnace (EAF) route. But power tariffs in India soared, to well over 20 US cents a unit, so only a few companies can still use this manufacturing

method. In addition, Indian people – like people in other developing countries – do not throw very much away. This means there is not enough scrap iron on the market and also explains why steel trading became more attractive than steel production for Agarwal's family.

The big players are conquering the world

Those who have survived and flourished are large steel plants. India's biggest

steel producer is the government run Steel Authority of India Ltd. (SAIL), with production of 16 million tonnes a year. Tata Steel is, with domestic production of 5.3 million tonnes, the second biggest steel producer in India, while its global production quantity of 25 million tonnes now makes it the fifth biggest producer in the world. Then there is Essar Steel that uses iron ore to make sponge iron for further processing. Essar also makes hot-rolled (HR) and cold-rolled (CR) steel. The Jindal Group (JSW and JSPL) runs steel mills in Karnataka where the largest reserves of iron ore can be found, and is busy trying to expand.

However, the steel trading and logistics business is profitable for Agarwal's family



for another reason: Most steel manufacturing units are located either in eastern or southern India near to iron ore mines and coal deposits. But many of the large users of steel – auto and two-wheeler plants, railway wagon plants and engineering units – lie in western and northern India.

That is where transporters make a lot of money, ferrying steel – either from domestic producers or imported – to the steel processing companies. And steel traders also earn a great deal of money from brokering between steel producers and importers on the one hand, and small and medium steel processing companies on the other hand.

India could produce more steel, if the government’s mining policy would favour

them. Hitherto it has refused to give mining rights to steel producers directly and has more willingly given them to merchant exporters of iron ore. Consequently, even though the current steel demand and supply position remains almost balanced, India is likely to witness a huge surge in steel imports.

This is only the beginning

New roads, highways, airports and railway lines will increase the demand for steel. Investments in new infrastructure will require more steel for housing and commercial establishments. And this will result in more consumer demand – e.g. for vehicles and white goods – further pushing up

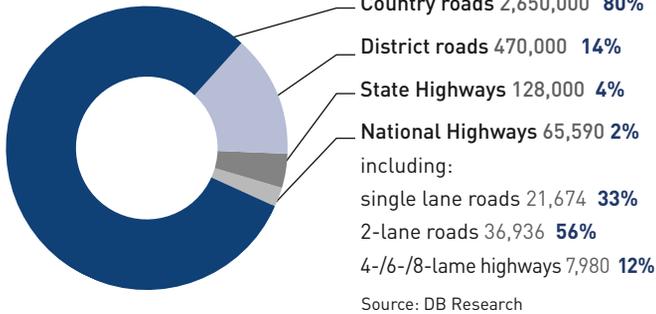
the demand for steel. In fact, investments in infrastructure have already begun to be made during the past decade. Not surprisingly, spot iron ore and coking coal →

India’s steel producers (in mio. tonnes p/a)		
Name of company	Current production	Estimated by 2020
SAIL	16	40
Tata Steel	5.3 (25)	33.7
JSW	3.8	31
Essar	4.6	23.7
JSPL	2.4	21.5
Ispat	3	19
RINL	3	16

Illustration: Rentzsch

India's dense highways network

in km



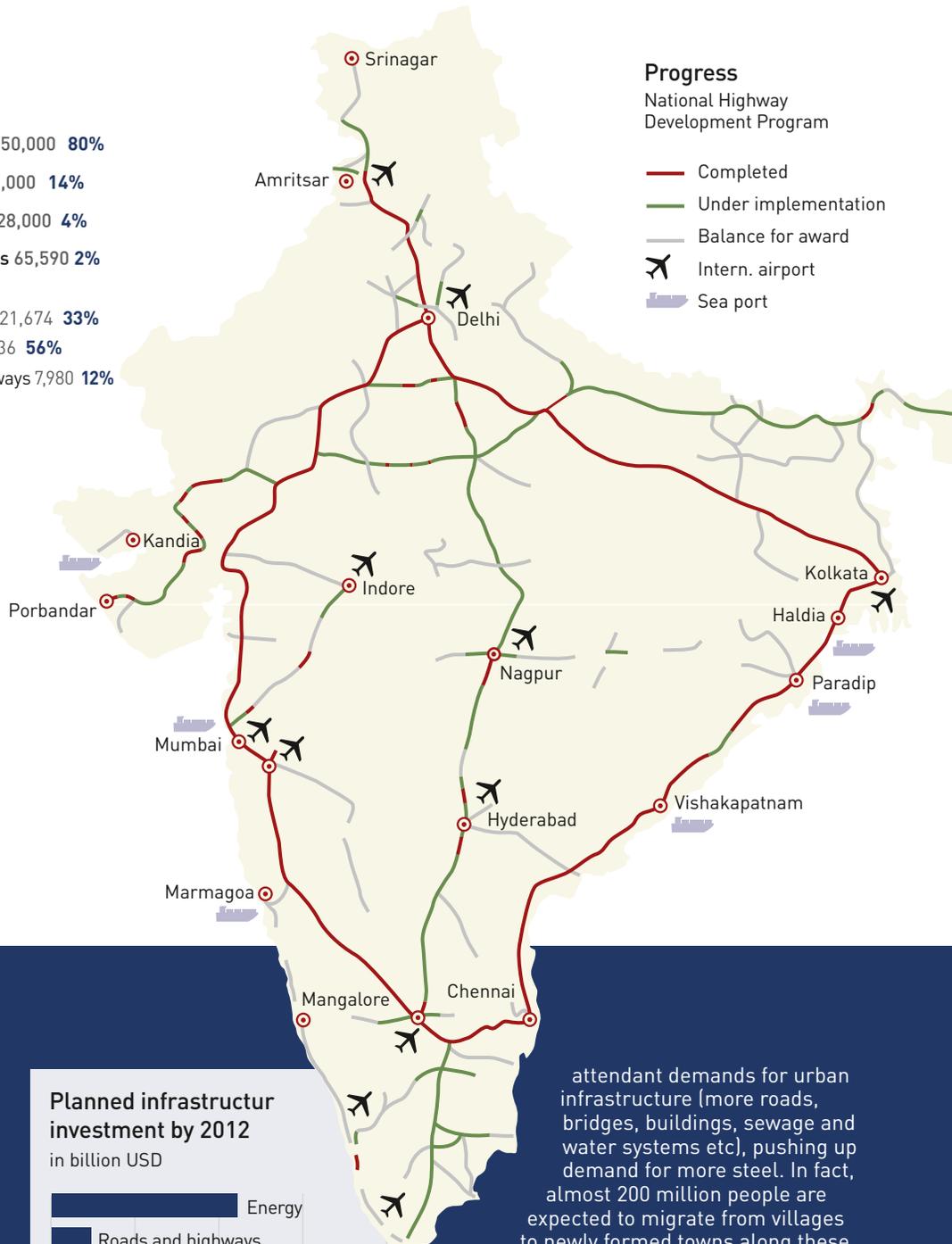
Source: DB Research

Commercial vehicle production in India

(business year 06/07)

Name of company	Heavy & medium comm. vehicles	Light comm. vehicles
Tata Motors	185,090	151,500
Ashok Leyland	83,100	450
Mahindra & Mahindra	—	52,240
Mahindra Nissan	—	1,430
Force Motors	—	7,530
Eicher Motors	19,140	8,860
Total	287,330	222,010

Source: Evaluation of business reports



Why not earlier?

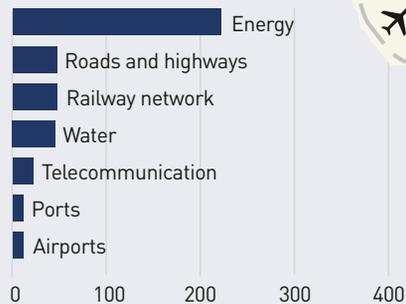
■ Why has India's steel consumption remained so low? The critical reason is absence of good infrastructure.

But things are changing rapidly. Consider how, for almost fifty years since its independence in 1947, the country saw the creation of just around 334 miles of new 4-lane roads. However, ten years ago, the government embarked on the Golden Quadrilateral network creating around 3,625 miles of 4- and 6-lane highways.

It is over 95% complete, and connects its 4 largest cities: Delhi, Kolkata, Chennai and Mumbai. Moreover, another 2,000 km of four- and six-lane highways and half a dozen new airports and runways is now being created. Highways and bridges cause more steel to be used, and will also allow for more cars, trucks and buses. All this has begun accelerating the creation of new towns, with their

Planned infrastructure investment by 2012

in billion USD



*Costs of the National Highway Development Programme through 2015

Source: DB Research

attendant demands for urban infrastructure (more roads, bridges, buildings, sewage and water systems etc), pushing up demand for more steel. In fact, almost 200 million people are expected to migrate from villages to newly formed towns along these highways over the next 15-20 years. It could become the world's biggest migration ever in history.

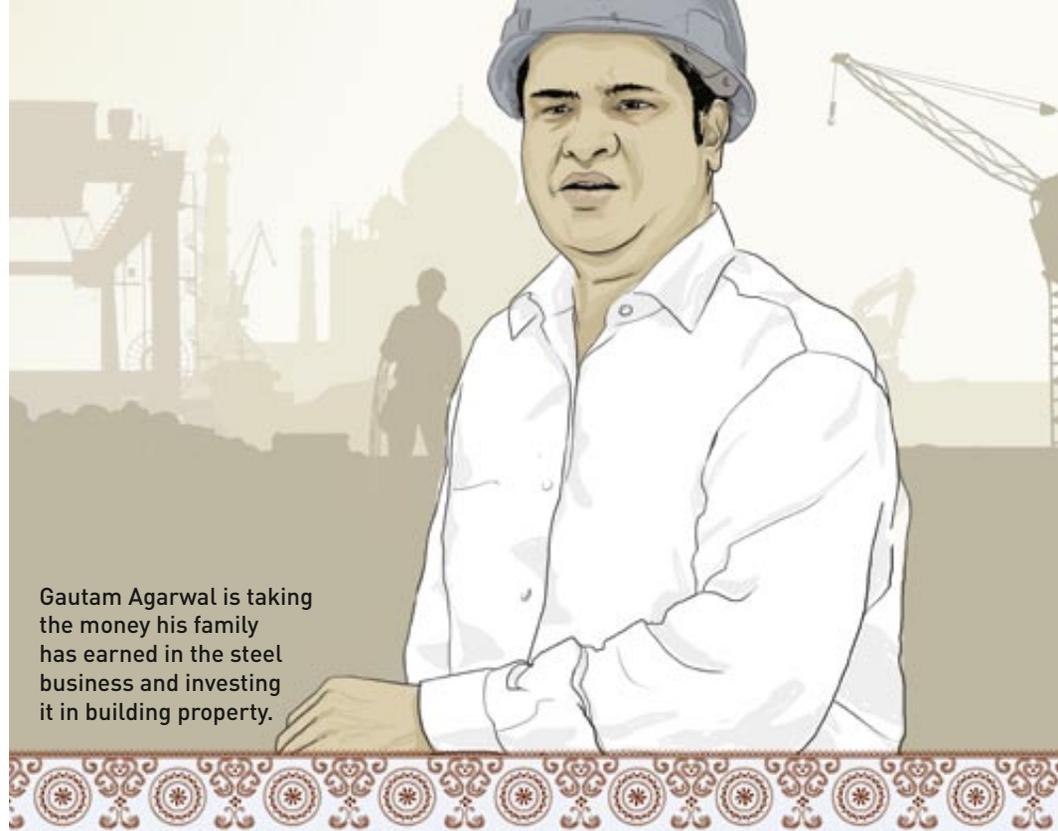
This is bound to make India's steel consumption profile change. Currently, infrastructure accounts for much of steel consumption. And this is likely to be so for the next five to ten years. Gradually, as roads and vehicles multiply, the country is bound to opt for more flat steel consumption which goes in to the manufacturing of white goods.

prices have risen on at least three occasions during the past six months. This is aided and abetted by China's significant steel imports, in addition to the huge quantities of steel it produces at home.

The per capita consumption of steel in India is currently about 40 kg. Compare this with 250 kg for China and over 350 kg for developed economies (world average: 140 kg). It does not take a genius to figure out that India's claim to becoming a global economic power will see per capita steel consumption increase.

More sexappeal than ever

While it is true that countries like South Africa and Brazil have climbed the economic ladder without seeing per capita steel



Gautam Agarwal is taking the money his family has earned in the steel business and investing it in building property.

consumption go beyond 100 kg, it only underlines the fact that per capital steel consumption for India will have to cross the 100 kg mark very soon. Most analysts expect this to happen before 2012. That explains why India's production is expected to cross the 100 million tonne mark in five years' time.

All this is bound to result in huge bonanzas for manufacturers and traders of steel and also for those in the logistics business. And steel processors are also benefitting from the new infrastructure as well as growing demand for cars and other consumer goods. All of a sudden, steel has begun to have a lot more of sex appeal than ever before. (rnb)



Steel Logistics

Between 8 and 9 tons of raw materials and preliminary products (e.g. ore and coal in various processing stages) have to be transported for the production of just one tonne of raw iron. Tata Steel alone, India's prime steel producer with a production capacity of 5 million tons, generates daily movements of 600 to 700 trucks bringing raw materials to the mills and departing again. In addition to the approx. 400 railway trucks coming and going every day. Projected to the total iron and steel production of the country of around 53 million tons, this results in 12,000 trucks and 8,000 wagons each

day. Expectations are for this to double by 2012 – referring just to the steel branch.

Most of the major steel mills are based in the East of the country where the largest iron ore and coal reserves are to be found. But the most highly developed trade and industrial regions of India are along the West coast and in the South, and the main car manufacturers such as Maruti-Suzuki, Eicher Motors or Hero-Honda are in the northern regions. As a result, most of the steel generated in the East or imported on the West coast has to be transported to the North, covering average distances of

between 1,200 and 1,500 km (compared to average distances of 500 to 600 km in Europe). This makes the transport distances among the longest in the world.

The situation is further aggravated by the many customs and control points between the various Indian states so that it takes a truck in India five to ten days longer to cover the same distance as it would in European countries. India therefore has to make a far higher capital outlay than any other country in the world, which can only be offset by low wage costs and low accommodation costs en route.



Cast all in one

Quality management and voluntary certification: The Busch foundry in the Sauerland wants to be always one step ahead.

Like water it flows into the casting ladle, but it is seven times as heavy as water: hot, molten iron at 1,500 degrees Celsius. It glows with a glaring orange. When a few drops become detached they solidify in an instant to a hard black substance. The heat hits you in the face. When the ladle is emptied into a mould, the molten metal is cast to make the parts which will later leave Busch from its two plants – as slugs from the foundry in Meschede-Wehrstapel, or machined ready to fit from Bestwig: brake discs and brake drums, and flywheels for diesel engines, exclusively for the commercial vehi-

cle industry. About 20 lorries a day leave the factory site; the company produced 2.5 million castings last year. They weighed 115,000 tonnes in total. Precisely cast, from high-quality materials. At Busch they place great importance on quality.

The company from the Sauerland primarily supplies all the commercial vehicle manufacturers in Europe, as well as other axle manufacturers. “All our customers demand the highest standards in terms of consistent quality,” says Wolfgang Krappe, CEO of the Busch foundry. “And we want to be the best.” A comprehensive quality management system, voluntary certification and well-trained technicians ensure that this is demonstrated again and again by every single product.

“We want to be the best.”

Busch operates at two locations: in the foundry in Wehrstapel, and in the machining plant four kilometres away in Bestwig, where the cast materials are machined – turned, drilled and milled.

Up to 28 tonnes of iron can be cast every hour. The raw materials themselves are carefully chosen: Busch buys only selected, continuously monitored scrap from press-

ing shops and forges. An entire car from the crusher, including plastic components, would not end up in the casting ladle at Busch.

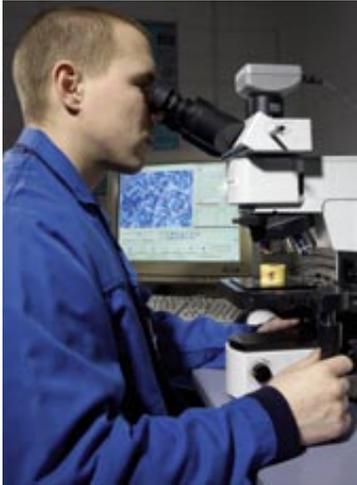
Continuous analysis

The iron becomes molten at over 1,500 degrees. It is still at 1,400 degrees when it is poured into the moulds. A sample is taken from the molten mass every 15 minutes to check the purity of the material. It is poured to form a small round disc, polished and then analysed under a spectrometer. The material is vaporised in an arc on the surface. The measuring device detects from the colours of the spectrum exactly what is in the sample. The figures are compared with the standard figures. It would be immediately obvious if the material did not comply with the requirements – and then the whole batch would be rejected. And in that context the Busch foundry voluntarily sets the figures accurate to a hundredth of a percentage point, whereas the customers’ requirements relate only to a matter of tenths. Measurements at this level of accuracy enable continuously reproducible analysis – and if required the customer gets a works certificate with all the data. Every batch is recorded, →

Photos: Golz



Wolfgang Krappe (left), CEO at Busch, has high quality standards.



»A sample is taken every 15 minutes: Is the raw material as pure as is required?«



The hot iron is as liquid as water but seven times as heavy.

and thus can be tracked and identified. The moulds into which the molten iron is poured are made from sand. They are allowed to rest for three hours after casting, until they have cooled to between 400 and 600 degrees, and then they are separated from the sand again. The fact that the material is given time to cool in this first stage is good for it. Fewer stresses are generated, and as a result the products are sturdier and more durable. To cool the components down again and to separate them from the sand, they pass over a vibrating grid: At the end of this the temperature has fallen to about 35 degrees and the coarse sand residues have been removed. The parts are entirely cleaned in the blasting shop, and deburred if required. This process, from the raw material to the finished, unmachined part, takes about six hours.

The material is given time.

“We offer quality and we always do our best to be able to deliver on time,” says Wolfgang Krappe. There are three major competitors in the European market: “Fifteen years ago there were considerably more than that.” The foundry has concentrated on its core areas of competence: brake discs, brake drums and flywheels for commercial vehicles. In recent years the installations at Busch have been extended: Of two casting installations, one has been upgraded to the extent that it has replaced the other (older) installation. It has been joined by a new mould-making installation, which is especially designed for brake discs. In operation since 2005, this is now also used to its full capacity, running three shifts, 24 hours a day – only on Sunday does it get a day off. Casting takes place in

The path taken by the iron

- The raw material is smelted at 1,500 degrees.
- The molten iron is poured into moulds made of sand.
- It is given three hours to rest – which makes it more durable.
- The parts cool down further, they are separated and cleaned up.

boxes, in which the sand forms the mould. In the new machine the brake discs are cast with molten iron from the centre outwards. As a result the molten mass is distributed evenly and the finished parts are particularly homogenous. 280 boxes can be filled per hour – compared with 120 per hour with the old installation. As a result the Busch foundry has been able to accept more orders, increasing sales by 52 % from 2005 to 2007. Since last year another new major order from a Scandinavian lorry manufacturer has been cranking up business: “We are already thinking about expanding capacity still further,” says Wolfgang Krappe.

One of the certifications to which Busch has voluntarily subjected itself is in compliance with ISO TS 16949. It requires a quality management system that provides for customer orientation and continuous improvement, among other things. “We want this type of pressure,” says

»We want to
be always one
step ahead.«

Krappe. And sound insulation and environmental protection are another important factor at Busch, not least because the foundry is located right next to a residential area. That is why the foundry has also had an environmental management system in compliance with DIN ISO 14001 for four years. For example, the lost heat from the smelting operation is captured using thermal oil and used for other processes and to heat the whole factory.

In its storage facilities Busch uses special identification technology: Radio Frequency Identification, or RFID for short. The storage locations are provided with what are known as tags (which are transponders set into the floors of the warehouses). In this way it is possible to check whether everything is where it should be at any time – and to locate every part. “This provides a high level of booking security,” says Wolfgang Krappe. “So we can be even more reliable and prompt with our deliveries.” Busch is one of the very first companies to use this technology. “We want to set ourselves apart from the competition and to be always one step ahead.”

On 1 October 2007, Busch concluded a joint venture with Hungarian Rába AG: They now intend to operate a foundry together in Győr, in the northwest of Hungary, employing the nodular graphite casting process. The foundry has a modern, electric smelting operation, which can produce seven tonnes of material per hour. However, the very old moulding installation will have to be replaced by a new one, which will come into operation in 2009. Nodular graphite casting enables the companies to manufacture products that can only be produced by this casting process: for example hubs and housings. When the new moulding installation is in operation, the capacity then available is to be used to supply even more customers. (jg) ○



Best quality is appreciated by all customers, including BPW.

→ Info For more information about the M. Busch foundry, visit the website at: www.m-busch.de



Looking forward to the IAA

■ 2008 is once more an IAA year. From 25 September to 2 October 2008, the exhibition halls at Deutsche Messe in Hanover will again become the world's largest market place for all aspects of commercial vehicles. The successful statistics from 2006 still resound in our ears: 1,556 exhibiting companies from 46 countries. 210,000 square metres of the exhibition halls in use and 40,000 square metres outside as well. 256,600 trade visitors. 253 world novelties were presented, with 98 European and 83 German new product launches.

Which new records will be set this year? Which controversial issues will emerge to keep the transport industry talking, such as the EuroCombi concept last time? The motto is clear: "For everyone en route". In addition, the regional focus of the IAA will be on East Europe.

Eighteen months ago, BPW introduced the new ECO Plus 2 axle generation. This year once again, the company will be presenting exciting innovations. But we won't be saying which just yet! Wait and see! Hall 26 will once again be our meeting point.

Win-win situation

■ The world's largest commercial vehicle fair is looming on the horizon and we would like to find out exactly what your plans and ideas are for the IAA Commercial Vehicles 2008. Please just answer our three questions (see coupon). Or complete the online form under www.bpw.de/trailerworld.

We will express our gratitude by sending a copy of the book "Die Herausforderer" (The Challengers) to the first ten entries. Reading this trailer world will already have acquainted you with at least two of the "new world enterprises" from emerging countries: Tata and ArcelorMittal. The other 23 are presented in detail in the book by "Handelsblatt" editor Joachim Dorfs (publisher) and his colleagues. Take this opportunity to get to know the possible market leaders of tomorrow!



Appreciation for trailer world

■ In the last issue of trailer world we asked for your opinions on the relaunch of the BPW customer newsletter. Many thanks for your numerous reactions. We were delighted with the appreciative comments on contents and design. Your constructive suggestions are just as helpful,

together with requests for other subjects which we will take into account when planning future issues. Mario Höning, Fleet Manager at Hurrel Spezialtransporte in Gaggenau, was particularly lucky and is now the proud owner of a Herpa "Scenix Edition" model of the BPW Infomobil.

Questionnaire

When will you be visiting the IAA in Hanover?

- during the week at the weekend

What is your motivation for visiting the IAA?

- just having a look concrete need for information and talks
 conclude business transactions I am an exhibitor

Which growth region are you particularly interested in?

- Russia India China Middle East

I liked this article in particular in this issue of trailer world:

I would like to suggest the following topics/subjects for future issues:

Company:

First name, surname:

Position:

Road, town and post code:

E-Mail:

Phone or fax:

Please send this coupon by post to BPW Bergische Achsen KG, P.O. Box 1280, 51656 Wiehl/Germany, or fax it to +49 2262 78-1579.

Planned topics trailer world issue two 2008



Keep calm!

A look in the Formula 1 pit lane.



Give me rubber!

A scarce resource: tyres and those that manage and distribute them.

Welcome!

Preview of the IAA Commercial Vehicles.



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