



SENIEBOGEN



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Cover:

Efficient timber logistics with trailer. Up to 30 t per trip can be transported by using the SENNEBOGEN 830 E Trailer. for more information see page 32.

Back cover:

It's getting cold and winterly on the construction sites. With this picture from Regensburg we wish all readers a beautiful wintertime.

Dear Customers, Sales Partners, Staff & Friends,

High market demand is driving us strongly forward as a manufacturer. In close cooperation with our suppliers, sales partners and employees, we do our best to deliver every machine punctually on the desired delivery date.

> This is not always a perfect success, because high demand for our machines requires us to keep on building up capacities, from the supply of welded components to skilled workers in acceptance. The SENNEBOGEN Group is currently investing at the highest level in its history in order to meet these requirements and actively shape growth. With headcount increasing at the highest rate ever in our 66 years in business, we are focusing on building up capacity and competence for the long term. But, and this is very important to me personally, our strategy is still to remain a company with individuals who stay close to every one of our partners, you included. That is why I am looking forward to all the face-to-face meetings with our community, hopefully no later than at bauma 2019 in Munich.

> > **Erich Sennebogen - Director**







INTERF©RST Munich 18th - 22th July 2018

Timber industry on the upswing: Interforst a complete success

With 75,000 square metres and 453 exhibitors, INTER-FORST, the largest INTERFORST of all times, welcomed over 50,000 trade visitors from 18 to 22 July. The exhibitores agreed that the mood in the industry was excellent and the willingness to invest was high.

The production volume of the sawmill industry, for example, is higher than ever before. The prefabricated timber construction method is also continuing its upswing, according to an industry survey conducted by the Bundesverband Deutscher Fertigbau (BDF). So SENNEBGOEN decided to participate in INTERFORST again after 8 years.

The current SENNEBOGEN 718 E forestry telescopic crane, a unique machine for timber harvesting and tree felling work, was exhibited. The comfortable all-round machine combines the advantages of a mobile machine with the advantages of a telescopic crane. The manufacturer van Osch presented a selection of possible attachments at the joint stand. Also on display at the stand was a new Hannibal T50 crawler harvester from Impex, which was developed on the basis of a SENNEBOGEN material handling machine. This machine is able to remove entire trees upright, lay them out and cut them to lenght, protecting the soil and the forest.









2018 **Fair Review**



Metal & Steel Middle East, Egypt





Inter-Transport, Ukraine

100

Baumaschinen Messe Bern, Switzerland

2018 Fair Review

Also our dealers are worldwide and diligently on the way. Here is just a small excerpt where you could have met SENNEBOGEN at last year's trade fairs and talk to our dealers in person.





مانية ^ت

Holzmesse Klagenfurt, Austria

Vertical Days, Great Britain

 TOC Europe SMT Netherlands
 VERDE-TEC Spatharas Group
 LESDREVMASH

TransRussia

J. F. Lann

KwintMadi

Inter-Transport

G REW FORSEN

















SERVEROLSEN

bauma

G MARKETING MARKETING MARKETING D5th - 07th November 2018 Other 2018 Every three years the industry goes into overdrive - bauma Marketing Meeting gets Marketing Meeting gets things in gear Marketing meeting gets

From 8 to 14 April, the bauma show is once again set to draw hundreds of thousands of visitors from all over the world to Munich. The previous occasion in 2016 saw 583,736 visitors from 219 countries – that's the record to break in 2019, and one of the reasons why the 3500 or so exhibitors have long been preparing for this mammoth week.

And also why in November, SENNEBOGEN invited dealers to the bauma Marketing Meeting in Straubing. Over two days, initial campaign steps were outlined, advertising drummed up for social media and all the other channels, and common goals formulated. There was consensus among the 90 participants that bauma 2019 will be even more digital, faster and impressive – a thoroughly euphoric mood diffused through the workshops and presentations.

This much can already be revealed: visitors to bauma 2019 can expect plenty of SENNEBOGEN product innovations, highlights in the field of energy-saving technologies and, of course, fascinating technical discussions with dealers worldwide. SENNEBOGEN is certainly one of the most traditional exhibitors with its large cranes and material handlers. After all, the family-owned company will be celebrating its 60th bauma anniversary next year and remains the green heart of bauma.

Get in on the excitement and follow us now at **#greenheartofbauma.**

Setting a good example: Schlüter presents its bauma strategy

SCREWARDUNK



bauma Our highlight in 2019

Planning is already running at full speed so that everything runs smoothly in April. Have you already planned your bauma visit? You should definitely plan a visit to SENNEBOGEN. You will find us in the outdoor area FM12 on 2,000 m². Discover 11 machine exhibits and meet our SENNEBOGEN team and dealers from alle over the world.

Follow us at #greenheartofbauma for more information up to bauma. See you soon!

We celebrate 60 years of SENNEBOGEN at bauma - join us and celebrate with us in the green heart of bauma 2019.



Our bauma team is looking forward to your visit in Munich - contact your dealer and make an appointment.



Alexander Scherer CEO SENNEBOGEN Maschinentechnik GmbH & Co. KG

Series production or custom-built machines?

"We live diversity"

Interview with Alexander Scherer

SENNEBOGEN material handlers are known for their wide range of equipment options as well as numerous customer-specific special solutions. How that comes together at the Wackersdorf plant, why no day goes by without optimization at SENNEBOGEN Maschinentechnik GmbH & Co. KG, and what today`s biggest challenges are - we talked about this with CEO Alexander Scherer.

Mention Wackersdorf in conversation and to this day, the place remains closely associated with the nuclear reprocessing plant that was planned there in the 1980s. That notoriety extends far beyond the region – indeed there was a recent film on the subject. How does this back story continue to shape the province and its populace?

Wackersdorf is inextricably linked to the now-defunct plans for a reprocessing plant, but there is also a history of lignite mining that has left its mark on the region to this day. After the nuclear plans were finally abandoned in 1989, the region needed to secure jobs and thus an industrial zone was established on the 120-hectare site. SENNEBOGEN was among the first to invest here and continues to value the good location, the innovative atmosphere and a well-trained workforce in the region. Of course, those people and many other locals can go to the cinema and re-experience the turbulent past

SENNEBOGEN was a pioneer investor in the innovation park. How did things get started back then and what has changed since?

The plant was originally designed to manufacture mobile excavators with 12-20 ton operating weight

and that is still essentially the case. By 2005, a total of 22,000 earth-moving excavators had rolled off the production line - a huge success! At the same time, especially after the factory conversion in 2005-6, we entered the field of material handling: the 821 C series grew into the foundation for today's successful Green Line range. It must be remembered that the 821 with its operating weight of around 20 tons was the smallest product and is as heavy as the largest earth-moving excavator so far produced here. A lot needed changing, more than just larger indoor cranes and wider driveways. A whole plant had to be adapted to new products with operating weights well in excess of 60 tons. Today, the entire Green Line range is built here: from the 821 to the 860 in both wheeled and crawler version and operating weights of up to 100 tons.

Is series-manufacturing of such machines even possible, or are we already into custombuild territory?

In contrast to Straubing, here in Wackersdorf the series concept predominates even though every machine is different: you could say that we produce customized machines in series. What especially counts here are highly efficient, well thought-out processes to establish as much routine as possible. When you see how many variants are assembled from different undercarriages alone, from mobile through pylon solutions to crawler gantries, not to mention various equipment, cabs and drive solutions – all that modularity in the portfolio is very impressive. Further strong investment has gone into the Wackersdorf site over the past years. What have the most recent changes been and what does the future hold?

I could point to a whole range of optimizations and construction projects: not a day goes by when we do not critically review our processes or forge plans for the next round of expansion. In recent

Total implementation of the bring philosophy

years we have built new halls with modern welding equipment, rebuilt the paint shop and just this year we have again expanded our warehousing capacity and built new test and holding bays. For close to 18 months now we have been using a product configurator to create parts lists, drawings and production documents. A new logistics hall with high-bay warehousing and an intelligent forklift control system is set for construction in 2019. Here the objective is total implementation of the bring philosophy: just-in-sequence delivery of every component required in assembly.

So it's all about efficiency, modernity, intelligent workflows... and yet single-shift working still prevails?



As I see it, modern workflows and efficient processes are not opposing poles. Rather, each requires the other. We have doubled our production numbers over the past 18 months and plan to continue that increa-

> se. We achieve this in the present through extending our assembly line by one cycle, for example, and in the future by deploying intelligent, ergonomic assembly systems. The Multi Line comes out of Wackersdorf and it too will go into high-volume production on its own separate as-

sembly line starting in 2019. The single shift system is management tried and tested, and the workforce appreciates it too. It is also a location factor working in our favor compared to some of our corporate neighbors in the region.

Which is to say that everyone is talking about the shortage of young talent and skilled workers – how do you meet this challenge and what attracts employees to Wackersdorf?

This is indeed one of the greatest challenges of the present time. I think a key to success here is continuous training and development throughout one's working life. We have also been able to recruit more employees from abroad, for example the nearby Czech Republic, and are giving them German language training. In addition to single-shift operation, I think our strengths include a healthy working atmosphere, a stable family business with prospects, and open communication across all levels.

There are good reasons why our workforce has increased strongly, why we have nearly doubled the number of employees within the past 18 months. Naturally, in this area too we already have ideas on how to remain attractive. I'm thinking here of shuttle buses for employees from further afield, assistance with finding accommodation and offering language courses, but also of a new and interesting apprenticeship in industrial mechanics.

When you look at the Wackersdorf site and your team, what are you particularly proud of?

There are certainly a lot of topics worth mentioning. Which perhaps few people know is that we have been certified to ISO 9001 quality management, ISO 18001 occupational health and safety and even ISO 14001 environmental management. This also reflects our green mindset. But what I'm for years personally most proud of is my team. They deliver outstanding performance every day, make high demands on themselves and expertly integrate even the most extravagant customer wishes in series production. Not least due to my years of activity in various departments since 1995, many personal friendships have also developed outside of daily work. The same is certainly true among many other employees. I think that's great. The cooperation with the team at eye level motivates me every day a new and ensures a good working atmosphere. This is the key to success.

2019 is already just around the corner and bauma is on the horizon. What are your New Year's wishes for the company and for yourself personally?

For us as a manufacturing site, bauma is naturally like Rome to which all roads lead. Our new products must be ready and standing there in April, and that can be viewed either as an inducement or as time pressure. Meanwhile I and my team are looking forward to again experiencing the construction machinery industry live and up close – this is something you simply have to be part of. Both personally and for the company, I would like to see a healthy year in somewhat calmer waters than the industry is experiencing at the moment I wish myself more time for personal dialog, interaction and having plenty of new ideas. «

In more than 20 years of SENNEBOGEN, colleagues have often become friends away from work.

WACKERSDORF a success story

Who would have thought that a site earmarked in the 1980s for a nuclear reprocessing plant, a project that was stopped after massive public protest, would ultimately turn into a modern industrial park covering 120 hectares? Straubing-based SENNEBOGEN was involved from the outset and has been successfully manufacturing excavators on the site since 1990.

How it all started: Ground was broken in September 1990 for a state-of-the-art production plant in Wackersdorf. Shortly thereafter, in October 1991, the first mobile excavator came off the production line. Some 20,000 more would follow by 2005. Among that number were many earth-moving excavators manufactured by SENNEBOGEN in Wackersdorf for sale internationally.

With many conversions, extensions and extensive modernization work over the years, the plant is now a key production site of the SENNEBOGEN Group. Among the machines built here is the versatile Green Line range of material handlers with operating weights between 17 and 100 tons. They find use around the world in industries that range from recycling, scrap and wood handling to port handling.

Considering that 15 machine types ranging from small telescopic loading cranes to gigantic harbor material handlers are currently manufactured in 179 basic variants with 87 undercarriage types, that demands flexible response to individual customer requirements from our employees. Whereas the plant in its early days was dimensioned for producing one small machine per hour, that has since changed dramatically. Not only are today's machines many times larger, they are also a great deal more complex. And yet, with just seven steps and three-and-a-half days from start to finish, the original assembly line turns out material handlers with differing sizes, drive types and equipment variants.

From there they proceed to adjustments, testing and finishing. If all goes well, a machine is ready for shipment in no more than 9 days. The Wackers-



dorf site has seen change in other areas too: whereas for a long time there was only production, the plant now boasts its own construction department. Multi Line is a totally new product developed here. Young people are being trained and integrated with the team through numerous apprenticeships that range from production mechanic, mechatronics technician, machining mechanic and construction mechanic to warehouse logistics specialist. This nurture of talent all about continuing the Wackersdorf success story.

Group picture of Wackersdorf employees in front of an 870 gantry



Reprocessing plant gets industrial park

Although parts of the reprocessing plant have been under construction since 1985, the end came in 1989 - an industrial park was created. SENNEBOGEN is one of the first investors. Foundation for plant 3 - 1990

The new plant is created with a total area of 160,000 m², of which 25,000 m² is office and production space.

20,000 mobile excavators until 2005

As European Design Center, SENNEBOGEN is building a total of 20,000 mobile excavators in Wackersdorf from 1990 to 2005. The production is designed for machines up to 20 t. Green Machines up to 100 t

Currently, machines from 17 t to 100 t operating weight are assembled and manufactured in the factory. The Multi Line is also developed and produced here.







An economical giant

"We were faced with the challenge of putting a real powerhouse into operation, one that put comparable machines into the shade when it came to energy consumption. This brought about the new 855 E-Series Hybrid, which is fitted with our Green Hybrid energy recovery system.

How does the energy recovery work? It is really quite simple. Our hybrid machines are fitted with an additional cylinder on the boom and a nitrogen piston accumulator. Whenever the boom is lowered, the gas in the reservoir is compressed. This recovered energy is then released during the next working cycle, reducing the amount of engine power required. This makes the machine particularly well-suited to sustained, energy-intensive applications such as scrap handling and port work, and it uses up to 30 % less energy."

Stephan Früchtl -Project Engineer Special Machines



Products



Small machine big potential

Not far from our steel mill TLC Balatonfüred in Hungary, our dealer Kuhn Rakodógép Kft. presented the 355 E to the paper producer Hamburger Hungaria. In one of his first test runs handling pressed recycled paper bundles, he impressed the customer especially with his practice-oriented design, which is reflected, for example, in the compactness and the elevating cab.

"The 355 E is a real powerhouse. It combines the advantages of the wheel loader and the conventional forklift and is therefore perfect for a wide range of material handling applications. I am convinced that this concept will be very appreciated by the customer"

Dr. Kázmér Csorba - Managing Director Kuhn Rakodógép Kft.



Environment & technology in balance

"At SENNEBOGEN I am mostly responsible for projects relating to our large material handlers, the ones that are very good at handling scrap and doing port work. Balancers are always in demand where demanding, sustained and efficient material handling with a large reach is required. The balance equipment implements the tried-and-tested, centuries old principle of employing the lever rule for using energy efficiently. The directly hinged counterweight compensates for the net weight of the equipment in almost every boom position. This means the machine can operate with considerably less hydraulic power and significantly reduced operating energy. In addition, we operate the balancers with electric motors that, compared to diesel engines, are low-maintenance and low-wear. All this is not just good news for wallets, but also for our environment, as it uses up to 75 % less energy."

Udo Thiess - Construction Balance Material Handlers







Products



Perfect, not only for offshore job sites

"Crawler cranes are used for heavy lifting work such as assembly work in building construction and bridge construction. As operators often confirm, flexibility, simple handling and reliability in daily operation are important criteria. When heavy components have to be moved, SENNEBOGEN crawler cranes often function as pick & carry machines. All our crawler cranes can carry 100 % loads, even with different boom and jib variants. Quite interesting are jobsites the offshore area. Therfore we have paid special attention to individual customer wishes. The results were: Maritime climate varnishing, man basket operation and the special safety requirements that apply in this sector. "

Nina Ortmann -Technical Product Specialist Crane Line



SENtrack^{DS}

The new SENtrack DS telemetry system

Imagine being able to access the real-time data for all your machines in one click and so increase your productivity. SENtrack DS, the radically redesigned telemetry system from SENNEBOGEN, makes this possible. It provides up-to-date machine details, reports and consumption values in one easy-to-use software solution, which you can view and analyze via your database access.

SYSTEM STRUCTURE AND OPERATING SYSTEM:

The SENtrack DS telemetry system consists of a communication module permanently installed in the machine. The module transmits data via the mobile phone network to the downstream telemetry database, which collects the machine data and displays it graphically. You then simply use your computer and personal password to log in to access the clear graphics and analyses on the dashboard.

MAXIMUM SAFETY AND PREVENTION:

Access to the dashboard means you have an overview of all your machines and their consumption data. The integrated interactive map also means that it is possible to control individual machines and look at their operating data such as oil temperature or consumption. All this ensures that you have real-time insight into the processes in your fleet and, at the same time, that your machines are in optimal operating condition. If a machine's readings deviate significantly from what they should be, maintenance can be started straight away, thus avoiding unnecessary machine downtime.

Using the integrated safety module, the system can raise an alarm for individually set limits and, in cases of emergency, you can take control of the machine via remote access - for the safety of people and machines.

Technical paper

REDUCE OPERATING COSTS, INCREASE PRODUCTIVITY:

In addition to the safety features, SENtrack DS ensures better machine load and thus saves you some cold hard cash - it highlights unnecessary unoccupied machine time and optimizes the routes used. It is also possible to monitor machine load over a longer period of time in order to better plan the operations of the entire fleet and so reduce consumption. Often all it needs is a brief reminder to the driver to use the machine's eco mode to reduce the consumption values of the corresponding operations.

NEW FEATURES FOR THE SENtrack DS VERSION:

The system has undergone a radical facelift and now features very user friendly navigation. On the dashboard you can view easy to read analyses and reports presented graphically. The modular structure means you can set up your favorites the way you want them, whether it is running hours or diesel consumption, you get an overview of the parameters that are important to you as soon as you login. Furthermore, there is an integral interactive map which can be used make time and cost saving changes to the location and movement of machines.



Not just for new machines

SENtrack DS is also available as a retrofit kit for existing machines. Installation can generally be arranged by your SENNEBOGEN dealer. Complete your fleet with very little resource input.

The SENNEBOGEN Academy offers a special course on the retrofitting of existing machines. Additional course content can be tailored to your personal requirements, the academy team are happy to include, on request, the telemetry system, software and hardware requirements, machine maintenance and service.



DO YOU ALREADY KNOV

Team presentation

OUR

Our training team is looking forward to your visit. We impart specialist knowledge in theory and practice - for dealers, customers and machine operators. Talk to us. From the left: Reinhard Horner, Maria Jänchen, Matthias Auer, Bettina Riedl, Werner Schmerbeck, Florian Attenhauser and Patrick Nickles

VEBC



Drivers, operators, service mechanics – the SENNE-BOGEN Academy team offers a broad range of training courses for everyone. Where should we train you? Come to our training courses in Straubing and you will gain first-hand specialist knowledge directly at our production site. Or contact us for individualized training at your premises.

At our modern facilities we primarily offer technical training for service personnel within our worldwide dealer network. Coordinated with the SENNEBO-GEN product portfolio, we train both the theory and practice and ensure impeccable service for our machines worldwide.

In **operator training**, the participants gain experience on the operation and functioning of the machine, for example. They learn how to perform routine maintenance and cleaning and receive tips for operating the machine with as few disruptions as possible.

In **Technical Training**, the participants get a comprehensive overview of the machine, know the location and function of the main components, and are able to perform troubleshooting with the hydraulic system and electrical circuit diagram. We offer regular courses for drivers of **material handlers** and cranes that lead to driving permits for crawler and telescopic cranes and material handlers. Take advantage of this crucial in-service training and rest assured of a sound legal basis for qualifying your machine operators.

Individualized training tailored to your company and needs is an option available to all our customers.



Team presentation

»CONTACT

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"We have the right training for everyone. The modular course system for service technicians offers continous knowledge transfer in several stages. In operator training and sales training, we make drivers and sales staff fit - talk to us!"

Florian Attenhauser, Head of Training Dpt. / SENNEBOGEN Academy



THE WORLD OF SE







Time is money...

...this motto applies above all to the recycling industry. When trucks queue, reliability and quickness at work are required. With an optimum viewing height into the loading space of the truck, the cab enables the driver to proceed with particular precision at every step. The compact design ensures a small turning radius of less than 4 m. This means that the raw material can be transported quickly and safely, piece by piece, to the designated location.

The robustness and longevity of all components also make the telescopic handler perfect for long-term use in multi-shift operation, which is not only not uncommon in this industry, but also absolutely essential. Unimpressed by external influences such as heat and dust, the driver can always rely on his machine and concentrate on the important things in the Multicab at comfortable temperatures thanks to the air conditioning system. The standard reversible fan ensures that the engine is always clean and fully operational, guaranteeing reliability even in harsh environmental conditions. After all the trucks have been unloaded, the next challenge is already waiting for the 355 E. This is where the hydraulic quick-change system comes into play. At the push of a button, the machine is equipped for shovel operation in just a few minutes. In this way, the 355 E is also ready to help out when it comes to handling coal for the company's own power plant, where it can show off its high breakaway forces. The Multi Line - a true multi-talent. Dealer and customer were visibly impressed





Multi Line in Multi Use - thanks to the special attachment perfectly equipped for handling paper bales.

The Multi Line

Job site report

convinces in toughest applications

NEBOGE

Fiberboard uses SENNEBOGEN 830 E in trailer operation

A view over the log yard at Fiberboard in Baruth-Mark in the German province of Brandenburg provides optimism for the future. Gigantic proportions, logs as far as the eye can see, and in between them a green material handler steadily doing its rounds. The machine is a new SENNEBOGEN 830 E that recently took over logistics at the yard. With the accompanying trailer it is capable of transporting up to 30 tons of timber at a time.

Founded in 2008, the wood mill takes in around 450,000 atro tons of log timber annually for chipping and processing into HDF substrate board. The Fiberboard GmbH HDF plant and the CLASSEN Industries GmbH laminate plant thus form a combine: HDF board is transshipped directly to the affiliated laminate plant where it is processed into laminate flooring – around 80 million square meters of it per year.

To further optimize operations at the log yard, it was decided in 2018 to introduce a new handling concept using a SENNEBOGEN 830 E material handler and a specially designed, braked triple-axle trailer with a permissible total weight of up to 50 tons. After close and intensive liaison with SENNEBOGEN and sales and service partner SWECON Baumaschinen GmbH, the new machine concept finally went into operation in September 2018.



Job site report

The people who opted for a new logistics concept with a material handler and trailer: (from left) chief wood purchasing manager Olaf Klinkert, machine driver Michael Kliem, fleet manager Sebastian Pätzig and SWECON sales representative Tony Schulze-Günther

> "We adapted the concept to our needs and even had the combination TÜV-approved," explains SWECON sales representative Tony Schulze-Günther. "The driveways are still being adapted because this machine of course has a larger turning circle, but even so there are compelling advantages already."

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Tony Schulze-Günther - Sales Manager SWECON

Recycling at Colne Valley since 1876 Schofield Metal Recyclers combines tradition & modernity

The Schofield family's scrap yard is unique in Great Britain, not only because of its idyllic location on a hill near Huddersfield/Yorkshire but also the material and how it is processed here deserve a closer look. Not only the green jibs of the two SENNEBOGEN material handlers fit perfectly into the green hilly landscape, but also the heaps of very fine broken castings piled up several metres high seem to have been part of the landscape here for decades.

The sixth generation of the family business Schofield of Huddersfield, England, is closely rooted in the subject of recycling. The history even goes back to the early 19th century, long before everyone was talking about recycling and the use of raw materials, the founder James Schofield had established a family tradition at the site with the recycling of waste from the wool industry. More than 140 years later, Schofield Metal Recyclers is still worth a visit, after all, Managing Director Mark Schofield focuses on "highest quality instead of mass production". That is why the company's machine and vehicle fleet is always at the cutting edge of technology. In mid-2018, sales and service partner Hassell was able to deliver a SENNEBOGEN 825 E and 830 E each - one more reason to take a closer look at the scrap yard.

For an outsider, the mountains of scrap metal seem to almost belong to the landscape of the hills of the Colne Valley. Located between Leeds/Bradford and Oldham/Manchester, material is collected and purchased within a 100 mile radius. Mark Schofield and his ancestors have specialized in the processing of high-quality casting materials. "We can break cast elements weighing up to 15 tons here on site with our drop balls, which requires not only skill, but



Job site report

Another good cooperation: the sales and service partner Hassell was once again able to deliver two new SENNEBO-GEN material handlers to Schofield Metal Recyclers. From the left: James Cowan (Hassell) and Mark Schofield.

also extremely robust and powerful machines," explains Mark Schofield. For twenty years, he has relied on the green SENNEBOGEN material handlers made in Germany.

Equipped with the modern Maxcab comfort cab, which can be elevated by 2.70 m, the drivers not only have an excellent view of their working environment, but also work reliably and are protected in all weathers. The SENNEBOGEN 830 E also has a powerful 164 kW diesel engine and a maximum range of 17 m. This allows them to stack up even the heaviest of materials safely to maximum hight. The high reliability of the machine and all components, the good stability and finally simple maintenance are features that are particularly appreciated here on SEN-NEBOGEN machines. Added to this is the industry knowledge and good support from the sales and service partner Hassells from Stoke-on-Trent.

"While a lot used to be done with rope-operated cranes, today modern material handlers are faster, more efficient and above all safer," explains Mark Schofield. Only through the continuous moderniz"We offer first-class products for a worldwide market according to the highest quality standards. This is exactly what we expect from our machines and this has been impressively confirmed in the SENNEBOGEN material handlers over the past twenty years"

Mark Schofield, Managing Director Schofield Metal Recyclers

ation of space and equipment has the company been able to successfully assert itself on the market over the decades with a focus on the highest quality in processes and materials.

Until about twenty years ago the scrap market for Schofield's, both buyers and sellers, was predominantly in the UK, today up to 60 % of buyers are from abroad, although the iron foundries in the region also remained indispensable customers, according to Schofield. For this reason, the stock on the site can never be large enough to safely fulfill any order, no matter how large.

Sawmill and Logistics company

and much more - Ziegler Group focuses on flexible solutions

With its headquarters in Bavaria, the Ziegler Group is well established in the timber and sawmill sector, not only because it operates Europe's largest sawmill, but also because the family-run company repeatedly draws attention with its forward-thinking innovations. These include a state-of-the-art log yard which opened in the past year. With a total of 12 machines now in operation, SENNEBOGEN's timber handling technology has been a constant and reliable presence in the Ziegler Group for many years, and not only in the log yard.

Founded in 1948 as a sawmill, Ziegler can look back on an eventful 70-year history as a family-run company. With around 1,000 employees at various locations around the globe, the Group has recorded impressive growth in recent years in particular. It employs more than 500 staff at Europe's largest sawmill alone, which can be found in the tranquil location of Betzenmühle in the northern Upper Palatinate region of Germany. And this is where today's visit is taking us. It's here that the company, which processes an impressive 1.8 million solid cubic meters of sawn timber every year, has its roots. An issue that has really come to dominate is logistics, as Fabian Hummel explains during our visit. He tells us that this is why Ziegler has had its own state-of-the-art container and handling terminal at the rail station in nearby Wiesau since 2011. Employing 120 own trucks and a further 70 subcontractors, Ziegler Logistik GmbH transports wood and other goods from the terminal to locations all over the world. Efficient handling solutions are critical in this context, and it is for this reason that Ziegler has been using SENNEBOGEN material handlers for log handling for around 15 years.

Just how much timber is moved by Ziegler on a daily basis is best illustrated at the site in Wiesau. Ziegler Logistik handles approximately 25,000 containers at the modern terminal every year, and this number is



Job site report
on the rise. Every day, a freight train travels between Wiesau and Hamburg/Bremerhaven taking containers of sawn timber for export and bringing back logs for the mill from the local area and beyond.

Two new SENNEBOGEN 818 E material handlers delivered by sales and service partner IBS Industrie- u. Baumaschinen Service GmbH in 2017 unload the stake cars on arrival and load trucks that transport the logs to the mill some 20 km away. The two 818 E machines with undercarriage are equipped with a 1.25 m² log grab and 9 m long equipment. Powered by a tier 4 97 kW diesel engine, the material handler is designed for demanding, continuous operation. A particular plus point for drivers is the Maxcab, which can be elevated to a height of 5.80 m eye level to provide an ideal overview of the working and loading areas at all times. Back in Betzenmühle,



"Due to the central location of the station, we needed machines that are particularly eco-friendly and quiet, despite the challenges of continuous operation and heavy loads. The SEN-NEBOGEN 818 proved to be the right machine for our customer. Thanks to its state-of-the-art engine technology, its noise emission values are significantly below the legal limits set in the Noise Emission Directive 2000/14/EC."

Florian Fischer - IBS GmbH

it is impossible to miss the booms of the green Pick & Carry machines in the log yard. Yard manager Klaus Mayerhöfer has a total of nine type 735 machines in operation, taking care of box removal, transportation, and sorting in the various woodpiles along the three sorting conveyors. The machines are sometimes also required to assist with unloading the 350 trucks that deliver daily to the sawmill.

The reliable 735 material handlers work in two-shift operation and some have already clocked up as many as 40,000 operating hours. Klaus Mayerhöfer tells us that this impressive record is not least credit to the excellent service provided by IBS GmbH, whose team carries out regular maintenance work and supplies spare parts.

6 material handlers in a year

Service provider relies completely on electric material handlers

The SENNEBOGEN E-Series machines really stand out among the huge scrap heaps. They have been a permanent fixture at mill service specialists STEE-LAGE since the beginning of 2018. STEELAGE has been operating at Ostrava, the largest steelworks in the Czech Republic, for some 5 years. Inside the works, which employs around 7,000 people and has been at the heart of the third largest Czech town since the 1950s, Steelage is indispensable as an internal scrap logistics expert, handling on average 120,000 tons a month, and doing so, from the start, exclusively with SENNEBOGEN material handlers.

Innovation, safety and a reliable partner - that is what is important to owner of Steelage, Jörgen Sassen.

"We have been working with SENNEBOGEN for a few years now, we were looking for the perfect balance in terms of price and performance that just did not seem to be on offer in the market." They finally found the ideal service and support partner in dealer Merimex, who guarantees reliable, customer-focused support. Those in charge of the project faced an interesting challenge thanks to the difficult space restrictions. The central scrapyard is surrounded by narrow pathways and two sets of railroad tracks, across which the scrap has to be transported. At the same time, they need to be able to easily load transport wagons and unload delivery trucks.

By working closely with dealer Merimex, a unique,



Job site report

Happy customers and project supervisor, from left to right: Daniel Hrbač (Steelage, Managing Director), Jan Beníšek (Merimex), Jörgen Sassen (Steelage, Owner), Kerstin Wabner and Uwe Hammer (SENNEBOGEN)

customized solution was configured from the modular SENNEBOGEN range. A flexible 840 crawler gantry excavator powered via a spiral winding engine line drum is used, meaning that trucks can drive under the material handlers without interrupting their workflow. With a reach of up to 23 meters, a strengthened special attachment is in operation. This has to stand up to the enormous continuous load of, on average, 6,000 operating hours a year.

aud .

In the center of the front section of the 20,000 m² yard, there is currently another stationary 825 electric solution that feeds a compactor and is soon to be replaced by the next largest machine, the 830. Three further 840 crawler excavators, with electric drive and 2 m pylon extension, drive between the wagons and the storage area. The extension guarantees the driver the best possible view of the scrap heap and for loading wagons.

"As we are involved in recycling the steelworks' old scrap, it was clear that, for cost reasons, we could only operate electric machines. Also, we are aware of our growing responsibility towards our employees and the environment and going forward we want to reduce our fine dust and noise pollution."

Jörgen Sassen - Shareholder Steelage

BHDE

1804

Duty Cycle Crane 630 HD Mobile: convinces on construction site for social housing in Munich

A new SENNEBOGEN 630 M-HD is currently in operation for the customer Gebrüder Wöhrl Grundbau GmbH. Equipped with a vibrator, it is used for sheet pile wall dismantling in the tightest of spaces.

Once again, the sales and service partner IBS Baumaschinen was able to deliver a SENNEBOGEN 630 HD, this time as a mobile version to Gebrüder Wöhrl Grundbau GmbH. For over 45 years, the medium-sized, family-run company has stood for competent and professional handling of civil engineering, special civil engineering and concrete construction projects of any kinds.

The current project in Munich is the construction of a new apartment building with underground parking for social housing. 22 apartments are being built here. Bayerische Beamten Lebensversicherung a.G. offers low-cost, family-friendly apartments in the city area for Munich households and households in the Munich region with medium incomes.

Here, the SENNEBOGEN 630 HD is now located between parked cars in the city centre. Equipped with a high-frequency 20 AM vibrator, it pulls the sheet piling out of the difficult ground and places it next to it in a controlled manner.

The duty cycle crane is powered by a 186 kW diesel engine; thanks to the free fall winches with 120 kN tractive force, work can be carried out safely and smoothly. The drivers on the Munich construction site particularly praise the stability of the machine, as well as the new Maxcab comfort cab. This is not

"We have relatively limited space here, a challenge for the entire team," says site manager Johannes Meyer. "For the dismantling of the sheet piles under these special conditions, we are optimally supported by the 630 HD. Because due to its compact dimensions the machine is the perfect solution here."

Johannes Meyer - Site manager/ Gebrüder Wöhrl Grundbau

from left to right: Sunay Myumyun, Johannes Meyer, Robert Breitsamer, Florian Fischer

Job site report

surprising, as the large-capacity cab is optimally adapted to the needs of the driver: In addition to the driver's seat, the layout and design of the controls and joysticks have also been revised. The consoles are positioned directly on the seat and are therefore mounted so that they swing with the seat and all operating elements can be optimally reached. The ergonomic design of the SENNEBOGEN joysticks allows sensitive and effortlessly operation of all functions. A particularly large sliding door opening facilitates entry and exit. Overall, the new driver's position can now be adjusted even more individually and ergonomically to the respective driver. The decision in favour of a SENNEBOGEN machine was made once again because it is simple and safe to operate and in the past only good experiences have been made with the machine manufacturer from Lower Bavaria, says Johannes Meyer. **(**

> The SENNEBOGEN 630 HD pulls sheet piles out of the difficult ground and convinces in tight, inner-city space conditions.

630

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SENNEBOGEN Telescopic crane 673 E

proves itself once again on the Grand Paris Express construction site

The Grand Paris Express, a large-scale project to construct a new super metro, is Europe's largest infrastructure project to date. The SENNEBOGEN 673 E, part of ENCO's fleet, is being used on the future driverless underground railroad network for the second time already.

68 stations and a network of automated subway lines are expected to be completed by 2030, with around 90 percent being built underground. Planned length - around 200 kilometers. A SENNEBOGEN 673 E is currently in use again. It is on a Grand Paris Express construction site for the second time to take care of logistics and do the heavy lifting. The excavation work is being carried out by contractual partner organization "CAP" (managed by Vinci Construction, and involving BOTTE FONDATIONS and SPIE BATIGNOLLES FONDATIONS for special foundations works). One of the future underground stations on the gigantic subway network will be located here. It will be a connection point between the "Line 15 South" of new Grand Paris Express ring and the existing "RER" suburban railroad.

One of the particular features of this station is that the excavation work sometimes needs to be carried out underneath existing tracks - quite a challenge for all involved.



Job site report



The 673 E is part of the fleet on hire from construction machinery specialists ENCO. This new investment has been made to meet the needs of medium and long term construction sites.

"There is a growing demand for telescopic crawler cranes in the French market, but there are only a few machines existing," says Thierry Bouvelot, Manager at ENCO. In order to be able to carry out the diaphragm wall work under the existing bridges on the construction site, the SENNEBOGEN 673 E is being used for all lifting procedures and, in particular, for the positioning of steel cages after drilling with a specially developed diaphragm wall grab and compact hydro rotary cutter. So that it can operate in complete safety under the bridges, the 186 kW SENNEBOGEN 673 E has been fitted with a special control system by SPIE BATIGNOLLES FONDATIONS and SENNEBOGEN's French sales and service partner SYGMAT. The telescopic crane's compact size means that, not only is it easy and cheap to transport, but also that it is ready to use very quickly after arriving on site, providing maximum flexibility on and between construction sites. Its entire fly boom is bolted to the main boom and hinged in two stages, meaning that hook heights of up to 50 m can be reached quickly and easily. This reduces setup time on the construction site. The tried-andtested boom system with a full power boom provides maximum flexibility on the construction site. The new 673 R-HD is already equipped for the higher standards required by Stage 5 emissions levels.

Our 300 t Duty Cycle Crane on tour

AMASUS

This one-of-a-kind SENNEBOGEN 6300 HD is owned by the Dutch Offshore Group and has been placed on board a DPS* vessel together with Amasus for a long-term offshore project.

The job of the 6300 in this project is to unload boulders of differing sizes and weights of up to 12 tons for underwater placement. The duty cycle crawler crane is equipped with two 3.5-5 m³ self-powered grabs. The 6300 is deployed in a 24/7 multi-shift operation. The crane impresses all along the line and with this "one-of-a-kind" machine on board, the DPS vessel is perfectly suited to such projects.

*Dynamic Positioning (DP for short; also known as Dynamic Positioning System (DPS)) is a computer-controlled system for automatically positioning a vessel. DPS-equipped vessels can hold their position without anchors or moorings. This matters, for instance, in the case of vessels that install offshore wind turbines or supply drilling platforms with personnel, fresh water and drilling material.

EMS DUBL



"We are particularly enthusiastic about the price-performance ratio and the simple operation of the machines, which always provide us with reliable services. We also appreciate the cooperation between Louis Scheuch GmbH and SENNEBOGEN."

Bernd Haid, Managing Director BHS Recycling

Anniversary

BHS Recycling celebrates 25th anniversary Congrats from SENNEBOGEN

For 25 years now, the metal recycler BHS has been successfully active in the collection, treatment and further processing of ferrous and non-ferrous scrap.

Right from the start, the Thuringian family-owned company relied on SENNEBOGEN material handlers and received its eleventh green machine just in time for its anniversary. SENNEBOGEN Managing Director, Erich Sennebogen, also congratulated the company personally and was received by an impressive group of five material handlers. At the same time, the new acquisition, the 825 Mobil in special metallic paint, was inaugurated. The whole SENNEBOGEN team wishes all the best for the next 25 years of BHS recycling!

Jubiläum





Dealer portrait

Since 2013, SCHWAB GmbH has been a SEN-NEBOGEN sales and service partner for the district extended to the north around Frankfurt, to the west around Kaiserslautern and for the whole of Baden-Württemberg. The Dettenheim-based company currently has 110 employees and pursues the general philosophy of all-round support: from construction site consulting through organisation to service and delivery.

Handover of a 653 E

Handover of a Sennebogen 653R crawler crane to the new owner, Chantre Abbruch und Erdbau GmbH, Neu-Isenburg (Photo: Managing Director H. Chantré, Georg Madas, crane operator and Lars Holzhey, Managing Director SCHWAB GmbH). On the construction site in the heart of Frankfurt, two SENNEBOGEN telescopic cranes were used to dismantle and renovate a house facade - the new 653R and a 673R rental crane from service and sales partner SCHWAB GmbH Baumaschinen & Baugeräte.

We wish you continued success and always such exciting construction sites!



Dealer portrait

There was lively interest at the SENNEBOGEN Days in November, where Schwab presented the performance capabilites of the various telescopic cranes to interested customers.



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