

UPtimes

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SENNEBOGEN®

NEWS AND INNOVATIONS FROM THE WORLD'S LEADER IN MATERIALS HANDLING



IN THIS ISSUE >>



PORTS/WATERWAYS
SENNEBOGEN
Electric Drive Supplies
Worry-Free Power
PG25



SCRAP/STEEL
Overhead Power Solution
Achieves Indoor Mobility
With SENNEBOGEN
PG8

From Where We Sit



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Good to know you!

We find it hard to believe that 2017 marks the 65th anniversary of SENNEBOGEN.

Many are thinking of retirement at this age but, here, it feels like we are still just beginning.

The late Erich Sennebogen Sr. founded this company in 1952 to design and manufacture agricultural equipment. His home in Bavaria was surrounded by rich farmland, and he knew the people who would use the equipment he built. He built for them.

We have grown worldwide, with more than 1200 employees. But that tradition of personally knowing and building for the people who rely on our machines is as strong as ever.

In America, I share a similar history and love of getting “hands on” with our equipment in the field. Growing up on the Lannes family farm in rural Brazil, I had a first-hand knowledge of how people connect with their equipment. I have held onto this fascination with “man/machine” interaction ever since.

Growing by learning

Of course, getting up close to our machines while they’re at work satisfies our personal interests. But we have also learned that staying close to the field is really SENNEBOGEN’s secret to business success. That’s why you’ll see our executive team out of their offices much more than in. We travel many thousands of miles every year to visit our customers and meet with our dealers around the world.

Our company has grown by learning what customers need, and then delivering solutions to the field. Many design features were inspired directly by customer suggestions. Services such as free technical training both for dealers and customers gives us more opportunities to speak personally and frankly with those who know our equipment best. And more: our training means we have more knowledgeable people out in the field, from coast to coast.

Taking more to the field

This philosophy is ingrained throughout our organization. Our regional territory managers are more than factory sales staff – each is also a technical consultant with specialized application knowledge to support customers on their work sites. Our industry leading dealer network understands the need for complete inventories of service parts and dedicated technicians and each one of them has fully adapted to this practice.

The value of growing our presence in the field is visible anywhere you go. Our first machines landed in America just 16 years ago. Now, SENNEBOGEN green machines are a common sight anywhere you find people unloading barges, moving scrap, loading logs, feeding conveyors, crushers and shredders, transferring waste, remediating rivers and, to a growing extent, demolition.

We are constantly learning through our personal connection with those who use, service and sell SENNEBOGEN equipment. And no matter how much we learn, there’s always something new for us to hear. We look forward to meeting you all.



In This Issue

2 A Message From

Erich Sennebogen and Constantino Lannes

3 In This Issue

Table of Contents

Putting "You" on YouTube

4 Join the Green Revolution

e-Green Electric Drive

Green Hybrid saves up to 30% of energy costs

6 SCRAP/STEEL



A trio of material handlers keeps the place moving

New Telematics System keeps machines on track

Overhead power solution achieves indoor mobility

Strong dealer support makes the difference

10 PIPE HANDLING



Specialized pipe yard duty calls for 825 M

Pipe yard steps up to 870 M for heavy lifting

12 LOGGING/FORESTRY



SENNEBOGEN for safety, savings and flexibility

Lumber yard gains 50% more capacity

Russia's newest wood industry gets SENNEBOGEN

SENNEBOGEN's new K13 ULS Stick

The top pick for Pick & Carry

SENNEBOGEN delivers pulling power

18 WASTE/RECYCLING



DC contractor cleans up with SENNEBOGEN

Biomass plant productivity boosted by 825 M

Electric material handler keeps things

humming at recycling operation

22 PORTS/WATERWAYS



Electric drive material handler attracts attention

875 crawler keeps coal flowing at Arctic port

Terminal Manager turns to SENNEBOGEN again

Electric drive supplies worry-free power

26 Safe & Sound

It's all about being safe & sound on the job

28 Factory Tour

Purpose-built machines from purpose-built factories

30 Center of Excellence

Factory trained graduates get hands-on experience

31 Parts Kits Shop SENNEBOGEN

Putting "You" Into YouTube!

Now your smart phone holds the key to hundreds of videos featuring every type of SENNEBOGEN machine at work in every application you can imagine!

Throughout this edition of UPTimes, we have placed QR codes on our jobsite stories and product spotlights. Scan any one of the codes with your smartphone app, and the QR code will direct you either to the related video on our new YouTube channel or a page on our website.



Connect here to see over 160 videos on our YouTube Channel



Customers “electrified” by SENNEBOGEN eGreen machines

The welcome that machine owners have given to our electrically powered eGreen material handlers has led SENNEBOGEN to a wide range of configurations to meet different customer needs. As well as the familiar, fixed or pedestal-mounted units, electric drive is now offered on a range of mobile machines either on tracks or rubber tires.



The big electric 860 R-HD at SRM has a reach of 59 ft. (18 m) and the lifting power for its 5.5 yd. bucket.

Improved uptime

According to Daryle Wall, Terminal Manager for Kinder Morgan Energy Partners at the Port of Charleston, “With a diesel engine, you can have overheating. The electric motor is simpler, much more “accurate” so it completely eliminates overheating, causing less downtime.

Protecting waterways

Electric drive is increasingly common in river port facilities and other waterway applications. Ruben James, a Terminal Manager for CHS Fertilizer says, “Electric power keeps fuel away from the river and it’s more cost-efficient. Environmentally and economically, it’s a win/win.” For a dredging and remediation project near Seattle, WA, District Manager Nick Harbert of Waste Management Inc. (WMI) says, “We decided to go with the electrically-powered machine because ... we wanted to hold ourselves to a higher environmental standard.”



An overhead ceiling system supplies the power to an electric 825 M allowing it to move freely.

Jobsite safety

Ryan Hollingshead, one of the family members behind SRM Concrete, focuses on safety in his company. “With that electric machine, you can have an entire conversation while it’s running right beside you. With diesel engines, it’s so loud, I was having to use walkie talkies. It’s just so much safer to be able to talk to the deck hands while they’re down there on the barge.” ■

But why is it that facility operators are so excited by electric drive? Here’s what they say:

Cost savings

At Ferrous Processing & Trading (FPT), in Detroit, MI, Jeff Beebe notes significant savings in rebuild costs alone. “Our 835 R-HD has logged over 45,000 hours on the original electric motor. That could be up to four engines.”

Low emissions

Jeff Beebe continues, “A big issue with new machines today, especially big machines, is the emissions. The electric just takes that right out of the equation.” Zero engine emissions makes electric drive a safe, clean choice for indoor operations, too. The Managing Director of Nickelhütte Aue, Henry Sobieraj, said simply, “I am very happy that we have found a genuine alternative to diesel drives for flexible indoor use.”



The pedestal-mounted, electric drive 840 material handler at Ferrous Processing & Trading (FPT) takes the worry out of emissions.



Dynamic Duo

SENNEBOGEN's "Green Hybrid" system, which turns boom dynamics into energy savings on every lift, is now available on two material handler models.



The latest update to the SENNEBOGEN 870, the new E-Series unit brings energy savings of up to 30% for heavy lifting applications. The 870E joins the 875 introduced in 2014 as our first machine to feature the innovative Green Hybrid energy capture system.

The two machines are easily recognized by their large energy recovery cylinder.

How it works

On every down-stroke of the boom, the additional hydraulic cylinder captures the energy produced by the lowering action, and stores it in compressed nitrogen cylinders located in the rear of the machine.

The stored energy is then used during the next upstroke that lifts the load. It helps to think of the hydraulics and accumulator system as a spring, which is compressed when lowering the boom, then released through the lifting cycle.

Savings plus safety

The system performs best in operations that cycle frequently through up and down operation of the boom. In these operations, the Green Hybrid system can reduce diesel or electrical costs by as much as 30%. The first 875 in North America went into service to replace the larger

SENNEBOGEN at Charleston Bulk Transfer (CBT). CBT's Turner Fabian reports that the 875 is unloading coal barges at the same pace as the 880, but it consumes 43% less diesel fuel! "When I looked at the numbers for fuel consumption, it is actually a lot better than I thought it would be. That is a huge improvement - it's money in the bank!"

SENNEBOGEN developed the Green Hybrid concept using standard hydraulic components, so service staff can support the technology with existing skills and parts.

The Green Hybrid system is unique in its use of conventional hydraulics to capture boom energy at the front of the machine and store it safely in secure containers at the rear. This approach eliminates any potential hazard of pressurized components near the front of the machine and operator's cab. ■

| Green Hybrid models | 875 | 870 |
|----------------------------|-------------------------|-------------------------|
| Engine | Cummins QSX15 | Cummins QSG12 |
| Net Power | 525 HP (391 kW) | 355 HP (261 kW) |
| Operating Weight – Crawler | 308,647 lb (140,000 kg) | 231,500 lb (105,000 kg) |
| Magnet System (Rating) | 33 kW | 33 kW |
| Max. Reach | 88'6" (27 m) | 82' (25 m) |

Join The Green Revolution!



A Trio Of SENNEBOGEN Material Handlers Keeps The Place Moving



A new SENNEBOGEN 830 electric material handler is put to use at HKS Metals for feeding scrap into the shredder. The 821 M and 825 M deal with loading and sorting.

When the Dutch company HKS Metals placed a new SENNEBOGEN 830 material handler with electric drive into operation, it featured a 56' (17 m) range and an operator height of almost 14' (4.2 m), they knew they had the right combination. The machine is primarily used to feed material into the shredder while an 821 M and an 825 M are used in the yard to sort and prepare feedstock for the shredder.

For over 15 years, HKS Metals, a subsidiary of TSR headquartered in 's-Gravendeel, the Netherlands, has relied on SENNEBOGEN material handlers to collectively handle up to a million tonnes of scrap iron and over 100,000 tons of non-ferrous metals every year. When it came time to order a new machine, Site Manager, Henry Heuvelman, knew that the key was to get the perfect balance of quality and price. "SENNEBOGEN technology, reliability, and excellent after-sales service from their dealer Kuiken made it an easy decision," says Heuvelman.

No need to refuel with an e-Green machine

In contrast to the 821 and 825 rubber tired machines used for on-site sorting and loading of materials, the new



SENNEBOGEN 830 is dedicated to feeding material into the shredder. Mounted on a four-point base frame, the electric material handler is positioned next to the shredder. With its 56' (17 m) boom and stick combination, it covers an area of almost 100,000 sq. ft. (900 m²).

According to Heuvelman, the advantages of the electric drive are clear. Along with energy and operating costs reduced about 50%, noise emissions are also significantly lower compared with diesel-powered machines. Additional savings come with longer maintenance intervals and no need to stop for refueling making the electric

drive environmentally-friendly with increased productivity built-in.

Purpose-built machine provides an excellent perspective

In close cooperation with SENNEBOGEN and the local sales and service partner Kuiken NV, the SENNEBOGEN 830 has been purpose-built to suit local conditions. The electric material handler is powered by a 177 HP (132 kW) motor and features numerous panoramic cameras.

The maXCab, which can be raised up, brings the operator to a viewing level of 14' (4.2 m). It gives the operator a clear view of the working area and into the shredder. The cab itself is fitted with armored glass and an inclined windshield. An additional floor window removes any obstruction. "Our machines are constantly in operation. Our primary objective is to minimize downtime and servicing times. With longer servicing intervals and exceptional reliability, the new SENNEBOGEN electric material handler helps us to work even more efficiently while increasing throughput." Henry Heuvelman, HKS Metals, 's - Gravendeel. ■

New Telematics System Keeps SENNEBOGEN Machines On Track

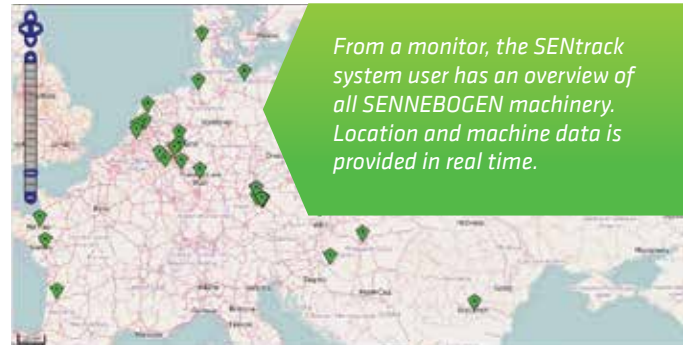
Owners of SENNEBOGEN material handlers will be able to maximize machine utilization with a new telematics system designed specifically for their use. With the introduction of the SENtrack system, SENNEBOGEN now offers a convenient, central platform for monitoring machine location and data wherever the machine is located, but will also be an effective tool for maintenance planning. The system will be able to provide machine status in real time, offering supervisors and maintenance personnel an effective user interface for fleet management.

If operating a larger fleet, the web-based SENtrack user interface provides a centralized overview of SENNEBOGEN machines in operation. Operative personnel can quickly gain an overview of capacity

utilization and, thanks to GPS, can track and optimize equipment use on the premises. At the same time, live data including fuel consumption, engine temperature, hydraulic pressure and utilization rate can be determined wirelessly. Accessed and analyzed by users online, the data can also be easily tracked over longer periods.

Monitor machinery from your desk

With a custom login to the SENtrack system, management and maintenance supervisors can easily track all SENNEBOGEN material handlers, automatically view maintenance intervals and easily plan servicing in coordination with their SENNEBOGEN dealers. The SENtrack system can, for example, display



From a monitor, the SENtrack system user has an overview of all SENNEBOGEN machinery. Location and machine data is provided in real time.

a visual notification when maintenance is due, check the machine's status, send the location to the service technician and review the machine's key operating data.

New SENNEBOGEN machines will soon be equipped with the SENtrack system at the factory. For some of the previous models, a retrofit kit is currently available. Please contact your dealer for further information. ■



Overhead Power Solution Achieves Indoor Mobility With SENNEBOGEN Electric Drive Material Handler

Economical. Efficient. Long service life. Low maintenance costs. The advantages of an electric material handler are easy to understand. For many operations, though, the question of mobility presents a challenge. Many electric drive machines are connected to their power source by a length of cable, but the cable itself may be an obstacle in confined work spaces.

At the Nickelhütte Aue metals-processing plant in eastern Germany, managers and the team from SENNEBOGEN looked up, and found a solution.

SENNEBOGEN recently delivered an electric drive 825 M model material handler to the Nickelhütte large indoor facility, where it recycles and remarkets a wide range of non-ferrous metals. The 825 performs loading tasks throughout the 480 ft. (146 m) long structure. Thanks to an overhead power solution, the 825's mobility is completely unrestricted.

A ceiling-mounted trolley crane delivers power to the material handler, keeping the electrical cables out of the way of floor operations. According to Nickelhütte, "This solution is unique, but it's easy to implement." A rotary feedthrough on the upper carriage ensures that the cable is securely connected with the machine. The supply cable is guided along with each movement of the machine via a ceiling



crane, automatically tracking the deflection of the cable to move anywhere it's needed.

Future-oriented technology saves energy and protects the environment

"Committed to progress – connected to tradition" is the motto of Nickelhütte Aue, founded in 1635. The firm's progress

Current supply from the ceiling for maximum mobility

The setup is extremely simple and could easily be retrofitted into existing structures. The ceiling crane is controlled by sensing the deflection of the cable. Regardless of the direction in which the machine

“ *Electric drives are the future for us* ”



led to today's specialization in the export of chemicals, metallic salts, non-ferrous scrap metals, copper-alloy blocks, and concentrates, shipping to 45 countries worldwide. Its electric drive material handler sorts, loads and moves many types of metal scrap through its storage halls. The company estimates that they achieve a 50% savings in energy and operating costs when compared to diesel machines. Indoors, the electric equipment has the added advantage of working quietly and trouble-free in a high dust environment with no filter changing needed and no exhaust gases to overcome.

moves, or how the carriage is slewed, the deflection of the cable directs the crane bridge and crane trolley to follow, while the operator remains focused on the loading work.

Henry Sobieraj, the Managing Director of the Nickelhütte facility, is enthusiastic about the implementation by SENNEBOGEN. "Electric drives are the future for us," he says, "not the least because we generate electricity ourselves at the plant and energy efficiency is an important issue for us. I am very happy that we have found a genuine alternative to diesel drives for flexible indoor use." ■

Strong Dealer Support Goes Hand In Hand With SENNEBOGEN Material Handlers In Utah

For the equipment needs of family-owned Utah Metal Works (UMW), purpose-built SENNEBOGEN material handlers compare favorably to what's available on the market. But it's not just about machine price and features. The local dealer, in this case, Rasmussen Equipment Company, is the key.

"Like it or not, equipment does have its downtime. It's part of doing business," explains Chris Lewon, third-generation co-owner. "The equipment gets beat up - it does - and it is going to go down at the wrong time, at the worst time. Your relationship with the dealer, and having immediate access to parts and service, is extremely important."

UMW made the move to SENNEBOGEN material handlers 12 years ago, when the company modernized its busy 10-acre, mostly non-ferrous metal scrap recycling yard in Salt Lake City. This upgrade included paving more than 90% of the yard with concrete, directing Lewon toward purpose-built wheeled machines and away from traditional converted tracked excavators.

"We went with SENNEBOGEN for a couple of reasons: One, access to some of the most common parts that typically fail, like hoses and fittings, and the accessibility to easily change in and out those parts. Second, we had a longstanding relationship with Rasmussen Equipment, which sells and services SENNEBOGEN



equipment here locally," says Lewon. "We thought that the service and having ready access to parts through a local dealer would be advantageous to us longer term."

"That \$30 part all of a sudden becomes a \$10,000 downtime incident," he explains. "The cost of whatever fails is greatly exceeded in about two seconds of downtime, so that's where it is really important to have a working relationship with the dealer's parts and service folks to keep this equipment up and running."

With its fourth SENNEBOGEN, Utah Metal Works made the move from the 52,800 lb. (23,950 kg) 821 M machines to the beefier 64,250 lb. (29,144 kg) 825 M. The larger machine offers more reach and lift capacity, yet maintains the maneuverability required on the compact Salt Lake City site.

"I tell people who are not familiar with the metals recycling business that we're kind of a reverse wholesaler," says Chris Lewon. "We buy from thousands of customers and then sell to a few hundred."

Scrap metals from industrial operations ranging from aerospace and transportation, manufacturing

to construction and demolition are trucked in to the UMW yard. They are sorted for sale to local and international customers, who use the cost-efficient recycled alloys in their manufacturing processes.

UMW's current SENNEBOGEN units each have logged about 9,000 hours. Both are equipped with four-tine grapples with rotators; the larger and busier of the machines has the SENNEBOGEN attachment. "In the wire processing world," explains Lewon, "having a rotating grapple is a huge advantage to unspool material, unload and place precisely."

That precision - "the grapple is almost an extension of the operator's hand" - has earned good comments from truck drivers and other customers bringing scrap metal to the UMW yard. Metal is picked off trailers without ripping up the plywood and boards often in place as temporary sides on the flatbeds. "I always joke with customers, 'If you want, the operator can scratch your back with the grapple.' Nobody ever takes me up on that." ■



Mark Lewon with the latest addition to the Utah Metal Works' fleet.



Pe Ben Chooses SENNEBOGEN 825 M For Specialized Pipe Yard Duty

According to Operations Manager Jimmy Gregory, the pipe yard for a current project in McKeesport, Pennsylvania presented specific challenges that led him to search for a wheeled pipe handling solution. The answer he found was a SENNEBOGEN 825 M material handler.

“We typically use excavators with a vacuum attachment to move pipe to and from our trucks,” Gregory explains. “For this job, the owner of the pipe yard required us to use a wheeled machine, so we went searching for it. We checked the dealers for a couple different OEMs. The SENNEBOGEN dealer had this machine available on their lot. We tested it out, liked it, so we put it to work.”

Pipe handling differs from most material handling applications, requiring an extra-long reach with the load capacity to safely maneuver the lengths of heavy steel pipe. Tommy Haynes is the Project Superintendent on site. He points out that each joint can weigh from 6,000 to

9,000 lb. (2,722 to 4,082 kg), in lengths from 20 ft. to 60 ft. (6.1 to 18.3 m). “The pipe in this yard is stacked on wooden stakes,” he continues, “so that extends the reach that the machine needs to pick a load.”

Less weight, more capability

At the height of the construction season, Pe Ben has had as many as 22 excavators and 200 trucks operating in the field. However, Gregory admits he was surprised by the capability of the 825 M. “I would have planned to have a 130,000 lb. (58,967 kg) excavator to do this job. But the SENNEBOGEN machine is less than half that size. The 825 M weighs in at less than 62,000 lb. (28,123 kg). But, as a purpose-built machine, it’s engineered to lift instead of dig. The SENNEBOGEN’s geometry allows a much smaller machine to lift like a heavyweight! The compact size allows easier maneuvering within the yard and also achieves a significant fuel saving.”

Fast cycling

The purpose-built material handler is also able to keep up with the cycle times for the Pe Ben trucks that service the jobsite. The fleet runs 7 trucks in the cycle to and from the site of the pipeline, with each truck carrying 11 lengths of pipe. Haynes’ target is to complete the loading for each pipe length in one minute, and the elevating cab on the 825 M provides an excellent vantage point for seeing into the stack when picking the load.

More potential

From this experience, Gregory says that Pe Ben will consider material handlers more closely for future projects. He acknowledges that a tracked SENNEBOGEN model would also be helpful for offloading his trucks at the construction site. The greater flotation and stability of the tracked undercarriage would be better suited to ground conditions there, but the SENNEBOGEN’s long reach and high load capacity would allow operators to set up conveniently at the end of the truck, where they can pick and place the pipe efficiently and safely. ■



Berg Pipe Yard Steps Up To SENNEBOGEN 870 M For Sure, Heavy Lifting

That's not a baton Chris Etheridge is twirling!

It's an 80 ft. (24.4 m) length of steel pipe, weighing in at 20,000 lb. (9,072 kg) which he's spinning deftly into place to load onto a waiting truck.

Etheridge is plying his trade, operating a new purpose-built SENNEBOGEN 870 M pipe-handler, in the Berg Spiral Pipe storage yard in Mobile, AL. The mill here produces up to 220,000 tons per year. Etheridge's job, as part of the Berg logistics team, is to get it all loaded and on the way out to America's oil and gas projects quickly and, above all, safely.

Versatility in the yard

The mill's Planning & Logistics Manager, Bob Ward, is confident in Etheridge and his equipment. "Our company has a lot of good experience with SENNEBOGEN machines at our facility in Mobile, AL, our sister operations in Panama City, FL and our home base in Germany. We have a smaller machine, a SENNEBOGEN 850, operating here since 2010. But for handling our larger pipe, up to 48" (1,219 mm) diameter, we needed a machine with more capacity."



The 870 M has now logged more than 4,500 hours in the Berg yard. Ward has deployed a fleet of loaders to transport and stage the rows of pipe in the yard. Etheridge and his 870 stack the pipe for storage, and also load shipments onto trucks for delivery. "It's a very versatile machine," Ward notes. "We have 50 acres of storage here. With its wheeled undercarriage, the 870 has good speed for moving through the yard and picking the pipe sizes we ship."

Purpose-built for pipe

Upsizing from an 850 to an 870 machine gives Ward a much-needed capability in the yard. "Chris has to pick up the pipe from the end, not from the center" says Brian Kinsey, Shipping Supervisor. "To balance the load, he has to reach 40 ft. (12.2 m) into the stack, where the vacuum lifter can grab the middle of the pipe. We needed the 870 to be able to lift that much weight, at that long reach."

Safe, gentle pipe handling

According to Etheridge, the 870 helps him keep loading and stacking operations safely as well as efficiently. "The hydraulics on this unit are very smooth, so it's safer and more precise while it's lifting, turning and swinging the pipe." Accurate placement of the vacuum attachment is essential to ensure a sure grip that will hold throughout the loading cycle. Precision and gentle handling are especially important to protect the coatings on the pipe which will preserve it from environmental factors after it's buried.

With the power and accuracy of the 870, Etheridge will complete a four-piece load of large diameter pipe, plus the wooden stays that stabilize it on the truck deck, in as little as six or seven minutes." ■



Working closely to achieve continuous loading for the chipping line: Two stationary SENNEBOGEN 835 electric material handlers and a mobile 735 "pick & carry" machine at Mondi in Štětí, CZ



Pulp & Paper Mill Combines Mobile And Stationary SENNEBOGEN Machines For Safety, Savings And Flexibility

Mondi, the international packaging and paper company based near Prague, CZ, is operating three widely different models of SENNEBOGEN log-handling equipment to support the same mill. In total, the Mondi log-handling fleet is

comprised of five machines including 835, 825 and 735 models.

Two stationary 835 electric material handlers are the centerpieces of the new log yard, feeding materials into

the wood processing area. Two 825 M machines handle truck-loading requirements, while the 735 "pick & carry" unit moves and stacks wood between the yard's storage areas.

Mondi has operated one of its largest pulp and paper factories in Štětí, approximately 26.7 miles (40 km) north of Prague, since 1949. Log yard logistics were reorganized recently, and the SENNEBOGEN machines formed the core of its new fleet. Site manager Tomáš Wojnar reports that half of the operation's logs are delivered by train, and loaded directly from the wagon into the wood processing area. The two SENNEBOGEN 835s, powered by 215 HP (160 kW) electric motors, stand directly alongside the tracks.

Safety plus savings thanks to the electric drive

Worksite safety is the top priority at Mondi, which is apparent on the SENNEBOGEN machines. Railings on all sides and walkways on the upper carriage protect Mondi personnel during servicing and maintenance. The machine will not operate while the cab door is open. A telescopic escape ladder allows workers to exit the machine within seconds in the event of an emergency, and an acoustic warning system alerts the driver if anyone enters the working radius of the machine.

With this focus on safety, there is no compromise on the bottom-line performance of the electric drive. Mondi estimates that operating and energy costs are around 50% of the cost of diesel-powered machines in a direct comparison. Low maintenance costs and the ability to work without refueling are additional advantages.

Mobile "pick & carry" concept provides support for loading

Wojnar explains that the nimble 735 log-loader takes on a key role in keeping the mill's loading station well fed. He calls the "pick & carry" concept "an impressive solution," with its compact dimensions allowing the machine to maneuver quickly between the wood piles. It can pick and stack logs up to 37 ft. (11 m) high. ■

Fornebu Lumber Gains 50% More Log-Handling Capacity With SENNEBOGEN 830 M-T

The Fornebu Lumber Company needed a reliable material handler to keep up with the seasonal peaks of the lumber business in the Canadian Maritimes. When a second SENNEBOGEN was purchased, the busy Fornebu crew gained 50% more material handling capacity without increasing the number of machines in the fleet.

On a busy day, 100 trucks pull into the Fornebu Lumber yard loaded with thousands of 9' (2.7 m) logs to be unloaded. Most days, truckers would pace around,

was an after-thought because he wasn't familiar with the brand.

But during the demo phase, the SENNEBOGEN 830 M-HD S material handler went from last to first on Godin's list. The more he learned from his dealer, Strongco, about the machine's easy-maintenance design, robust reliability and safety, the higher it rose in his estimation. A strong mechanical background helped Godin assess the structural integrity of the machines, as well as the relative ease



checking their watches hoping to be unloaded as quickly as possible in order to get another load, while at the same time, the saw line was spitting out framing lumber at 700 to 800' (213.4 to 243.8 m) per minute, hungry for more logs.

On the other side of these unrelenting demands, Fornebu originally had four wheel loaders and three material handlers. They were good machines, but even a small problem with them cost the company plenty in downtime and lost productivity. Everything required a service call, and replacement parts weren't easy to come by. The question of how to keep up the pace caused Michael Godin, General Manager of Fornebu Lumber, many sleepless nights.

SENNEBOGEN wins on quality, safety

Soon after joining Fornebu about four years ago, Godin put a plan in place to replace the aging equipment in the fleet. When he began the RFP process, SENNEBOGEN

of maintenance. "The way they designed the machine, it's very, very tough," he says. "The unique shape of the frame is stronger than what any other machine has."

Godin was so impressed with the quality and reliability that he bought a second SENNEBOGEN 830. Equipped with a logging grapple, the new purpose-built 830 M-T wheeled material handler has all the advantages of Fornebu's first SENNEBOGEN, including an attachment capacity that's 50% larger than the material handler it replaced. The 830 M-T has no trouble stacking 3,000 lb. (1,361 kg) loads higher than the other machines Godin compared it to. With the SENNEBOGEN 830 M-T, Fornebu has 50% more unloading capacity.

That, says Godin, means 50% faster unloading and 100% happier truckers. ■



SENNEBOGEN Material Handlers Team Up To Support Russia's Newest Wood Industry

Once a waste product of the plywood industry, oriented strand boards have become a successful business for a Russian company using SENNEBOGEN material handlers in both its log yard and inside its production facility.

The company, Modern Lumber Technologies (MLT) LLC, recently launched one of the largest oriented strand board plants in not only Russia, but the world, designed for about 784,770 yd³ (600,000 m³) of annual output. Created by pressing strands arranged lengthwise and crosswise into boards under high pressure and temperature, oriented strand boards are used for structural paneling, interior wall and ceiling paneling, and sill plating.

Pick & carry in the log yard

The lumber, which is delivered by truck from the heavily-wooded area around Torzhok, is unloaded and sorted in the Taleon Terra log yard by three



Three SENNEBOGEN 735 pick & carry material handlers unload trucks and feed the debarker in the log yard of the Taleon Terra oriented strand board plant in Torzhok, Russia.

SENNEBOGEN 735 material handlers. Equipped with 4.2 yd³ log grapples, the mobile machines then place logs on the feed table for the production facility.

For those in charge at MLT, the 735 material handlers are perfectly suited for this role. "The positive experience with our current SENNEBOGEN machines, high

The SENNEBOGEN 735 Sets The Pace For Pick & Carry Operations

Purpose-built to move wood with minimal maneuvering effort along direct travel paths. With all-wheel steering and just 12 ft. (3.6 m) wide, the 735 M-HD easily negotiates its way between tight rows of stacked logs. With a 32 ft. (9.7 m) reach, it is able to pick loads quickly and safely.

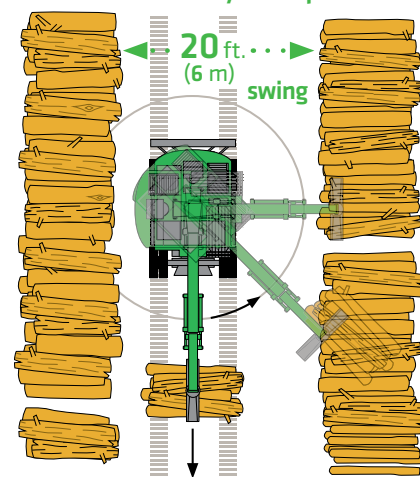
The driving and transport machine is especially designed for free-standing use with safe working loads up to a maximum of 20 t. ■



25%*

Less Needed

Pick & Carry Concept



With all-wheel steering and just 12 ft. (3.6 m) between tight rows of stacked logs.

* Percentages will vary depending upon conditions.

component quality and, not least, the reliability of the material handlers by SENNEBOGEN are what convinced us," says Vladimir Tsveltkov, MLT technical director.

The 735's pick & carry concept gives the machine flexibility in the yard. It can unload an entire semi-trailer in just four loads. The 360-degree slewing uppercarriage, with a range of 36 ft. (11 m), can load the double-chain debarking line on the feed table from the side or from the end.

Electric machine feeds chipper line

The actual production process starts inside the facility. The system complete with a stationary SENNEBOGEN 835 electric material handler feeds the chipper to produce the strands. The material handler is driven by a 215 HP (160 kW) electric motor and operates in shifts around the clock. The machine itself is positioned in an isolated cage above the chipper. From the elevated, spacious Mastercab cab, the material

handler's operator controls the system with an ideal view of the stalls below.

During the tough Russian winter, the debarked trunks are first thawed by two conditioning channels to chip the frozen wood with the best results. After this conditioning, the SENNEBOGEN units place the trunks into the hoppers of the chipper. The chipper itself turns the logs into strands approximately 0.6 mm thick, which are then sifted, dried and glued into boards up to 1.5" (40 mm) thick and 9'2" (2,800 mm) wide. ■

New ULS Stick Provides Added Productivity

To maximize the lift capacity of SENNEBOGEN purpose-built material handlers in log-handling operations, the new SENNEBOGEN ULS stick is particularly well suited to work with forestry grapples. The ULS stick option is designed to take a live heel with a top- or bottom-mounted

cylinder, as well as a fixed/dead heel or butt 'n top grapple as well as a hanging log grapple.

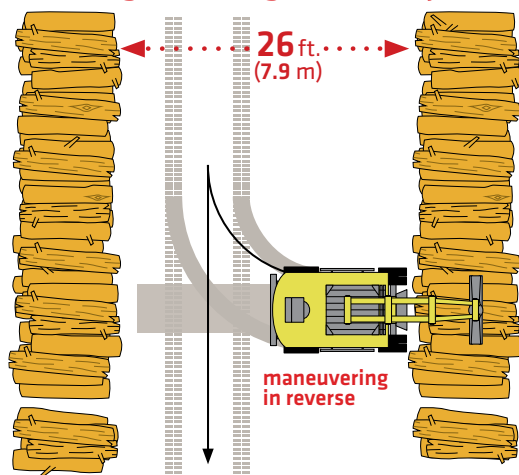
Shown here with a butt 'n top grapple on the SENNEBOGEN 830 M-T, the new ULS stick will likewise provide added lift capacity. The ULS is available 818, 821, 825, 830 and 835 machines. ■

NEW



Space Between Stacking Rows

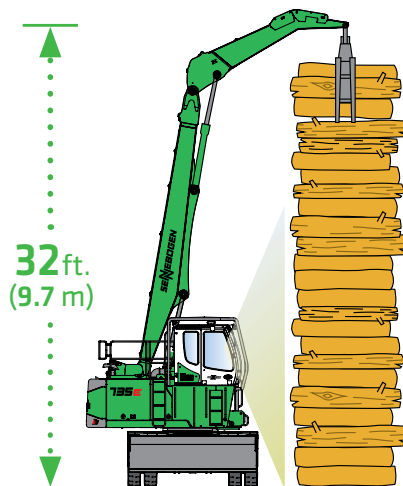
High-Lifter/Log-Lifter Concept



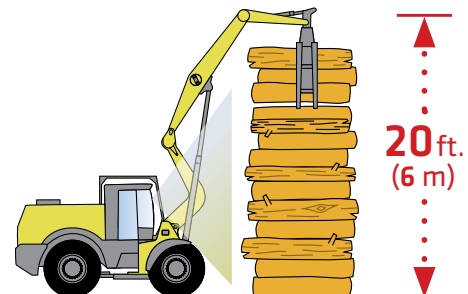
m) wide, the 735 M-HD easily negotiates its way

50%*

Higher Stacking



See the SENNEBOGEN 735 M-HD pick & carry machine in action, handling timber in a sawmill.



Being able to stack the logs higher makes business growth possible.

Lift More • Stack Higher • Cycle Faster



Elmsdale Lumber Team “Buys In” To The Pulling Power Of SENNEBOGEN Log Handler

When your employees have invested 20 years or more into learning their craft, it might pay to listen to what they have to say about any changes you have in mind. That’s been the philosophy at Nova Scotia’s Elmsdale Lumber Company. And so far, that approach has helped Elmsdale to remain one of the

Vice President Mark Wilber, in keeping with the traditions set by his father and grandfathers before him, asked his experienced team for their opinions before the order was placed.

“I might be writing the check, but you guys are buying the machine,” he told

members have been employed here for 20 years, 30 years and more. The mill operates a single shift to produce more than 30 million board ft. of premium wood products per year. “We specialize in wane-free lumber with about 60% of our production in 2” premium spruce. Another 25% of production is premium

Elmsdale Lumber recognized that the dual-transmission design of the 830 M-T was the right idea to solve reliability problems encountered when other log handlers pull 30,000 lb. (13,608 kg) trailer loads.



region’s most consistently successful sawmills, through more than a century of industry ups and downs.

Making the change to SENNEBOGEN

A fourth-generation, family owned mill employing 50 staff, Elmsdale has always taken a highly consultative route to continual improvement of its equipment and processes. The latest big change was the purchase of a new SENNEBOGEN 830 M-T log handler.

them. “They have to buy in to repairing and maintaining it, driving it, etc. They’re an integral part of the company and therefore an integral part of the success of the company. Everything we do, we try to involve the team as much as possible so they’re on board when the equipment comes in.”

Experience in premium wood

From woodlands staff, to mill operations to front office, many of Wilber’s team

decking. Specialty products include beams up to 4x10 for log homes, as well as wood siding and square timbers. The yard is open 7 days a week, around the clock, for log deliveries. The new SENNEBOGEN was acquired to pick, move and stack inventory, while also loading the mill’s infeed.”

Stepping up to purpose-built

According to Wilber, log handling was formerly taken on by two tandem log

The new SENNEBOGEN 830 M-T has taken over the duties of two tandem log trucks fitted with loading booms, resulting in improved safety as well as throughput.



830 M-T Trailer Puller

trucks with loaders on them. The log loader improved safety and productivity in the yard, but the loader was challenged by the heavy loads of the tri-axle log trailer it was required to pull. As part of Elmsdale's continuous improvement practice, the team continued to demo alternative equipment.

This led them to Terry Pickard, the SENNEBOGEN specialist at the area's Strongco dealership. Pickard introduced them to the 830 M-T model, which SENNEBOGEN purpose-built specifically for this application. "A fully loaded trailer will weigh upwards of 90,000 lb. (40,800 kg)," Pickard notes. "Most loaders aren't built for that. SENNEBOGEN designed a purpose-built undercarriage for the M-T model to handle severe pulling stresses and then equipped it with dual transmissions to maintain tractive effort on uneven and soft surfaces. It can pull that trailer through mud like no other."

A drive system to last

The undercarriage of the M-T was a key factor in Elmsdale's evaluations. "We looked at the maintenance issues on our old machine and most were directly related to the driveline," Wilber continues. "We did demo other log handlers, but the SENNEBOGEN appears to offer a much more robust drive system. We had the opportunity to visit other mills that had recently purchased a SENNEBOGEN. With this information and seeing it in operation, we got a much more comfortable feeling that the SENNEBOGEN drivetrain will outlast others in the market."

"The SENNEBOGEN is designed to pull," he concludes. "Our yard is in pretty good shape, but you do have some 'slip and grab.' The two transmissions are definitely the way to go." ■



735 Pick & Carry



825 M Stacking



830 R-HD Loading




830 M-T with Live Heel



825 M with Dead Heel





On the SENNEBOGEN 821, the elevating cab gives the operator a bird's-eye view.

DC Contractor Cleans Up With SENNEBOGEN To Cut Demolition Costs

Ross Tumulty didn't know he needed a SENNEBOGEN material handler in his demolition fleet. Now that he has one, the SENNEBOGEN way has become his company's way to complete demolition jobs more efficiently and profitably.

Tumulty is the President and founder of Celtic Demolition Inc., a full service commercial demolition company serving the metropolitan Washington, DC area since 1985. Well experienced in complicated and challenging demolition projects, Tumulty and Celtic have been leaders in adopting processes that achieve the most demanding goals for cost-efficiency and recycling.

"We had an opportunity to quote on a very large job, a 700,000 sq. ft. building demolition, but the customer would not allow any onsite crushing to take place."

Celtic needed a new solution to truck all the concrete to a recycler off the demolition site for crushing. The new process led Tumulty to SENNEBOGEN.

"We have an excavator with a concrete pulverizer to do the primary demolition, and a loader to build stockpiles of the material," he explains. "The SENNEBOGEN machine then sweeps the piles with a magnet to separate the metal and load it into a container."

Recovering costs

Tumulty realized that delivering cleaner concrete to the recycler would reduce his dump fees, while selling the recovered metal from the concrete created a new revenue stream to offset project costs. "I talked to some of the scrap metal recyclers I know, and they

is a compact 55,000 lb. (24,948 kg) model mounted on crawler tracks and features the elevating SENNEBOGEN maXCab. Tumulty reports that he was "pleasantly surprised" by the results of

especially benefited from the elevating cab. As Tumulty points out, "Having a bird's-eye view into trailers is especially helpful for moving bulky material into the trailers. The high perch lets you see how



Celtic Demolition's 821 R-HD equipped with a 48" magnet has become a very versatile piece of their fleet - from sorting and separating to "sweeping" the area for metal.

the project. "The shipped concrete is, I would say, 98% free of metals. It's so clean that our recycler took \$5.00 a load off his original quote, just because he liked the material!"

you're loading the material; you can be more accurate and build the load evenly."

Although the SENNEBOGEN machine was purchased for a solution with a specific need, Celtic now sees the new process as the go-to approach for moving and recycling material from the worksite. "Now that we've seen what we can do, it makes sense for us to continue this way. Our new process with our SENNEBOGEN doesn't take up as much room on the jobsite as a crushing and screening plant. This makes it a safer and more cost effective way to operate. It's a great tool for us; we are the only ones using it in the area and it gives us an advantage when we're quoting." ■

Having a bird's-eye view into trailers is especially helpful for moving bulky material into the trailers.

all said SENNEBOGEN was the best machine for the job."

The new unit in the Celtic fleet is an 821 R-HD green line material handler fitted with a 48" scrap magnet. The 821 R-HD

A versatile solution

Once it arrived on site, the project manager found more work for the new material handler. A second application, loading sheet metal scrap into trucks,



SENNEBOGEN 825 M Material Handler Boosts Viking Energy of McBain's Productivity

Thomas Vine, Plant Manager of the Michigan biomass energy plant, Viking Energy of McBain, LLC, has big plans for his facility's recently acquired SENNEBOGEN 825 M material handler.

"With the expected completion of a rail spur to our plant this June, our SENNEBOGEN 825 M will be put to work off-loading used rail ties from open hopper rail cars onsite," says Vine, "This will increase our processing capabilities significantly."

McBain plant processes 500 tones of fuel daily

The McBain facility, a subsidiary of GDF Suez, is a busy place that puts a premium on productivity and uptime. It's what attracted Vine to SENNEBOGEN.

With a workforce of 21, the McBain plant processes about 500 t. of material daily with a blend of waste wood, creosote treated wood, (mostly railroad ties), and used rubber tires. It generates roughly 143,000 MWH of power annually – enough for about 14,000 homes.

McBain's SENNEBOGEN 825 M is currently being used to feed the plant's two grinders and assist in their scheduled maintenance, including lifting equipment belts off the conveyors. "Our green machine has been operating about 7 hours daily for about four months, with operators switching off every 3.5 to 4 hours," says Vine. "Its 43' (13.1 m) reach



"The real value of the SENNEBOGEN 825 M handler will become obvious when we begin off-loading the ties onsite once the rail spur is complete this summer," says Vine.

With his eye to the rail car off-loading application, Vine says due diligence resulted in the acquisition of the SENNEBOGEN 825 M handler. "We looked at the competition, did a review of specifications and capabilities, and spoke to a lot of people before reaching our decision," says Vine. "The SENNEBOGEN 825 M material handler's ability to raise

machine's responsiveness and its hydraulics which let operators slowly feed the ties to the grinders, dropping in a couple of ties at a time right out of the grapple. "Our operators feel like the SENNEBOGEN 825 M machine is an extension of them," says Vine.

The SENNEBOGEN 825 M also offers the kind of mobility the McBain plant requires. Vine adds that SENNEBOGEN's simplicity of design, and reliable hydraulic-controlled system and the absence of computer technology were also important factors. "Computer-driven equipment won't last long in our environment. This machine is very intuitive and its simplicity of design enables our maintenance people to keep it running at peak efficiency," says Vine.

"I am very impressed with the simplicity of design and overall capabilities of our SENNEBOGEN 825 M – and I'm not impressed easily," says Vine. "Anybody can throw all the parts into a piece of equipment and make it work. But to get to the point where it's organized and efficiently designed takes an extra level of effort. It's obvious that extra level of effort has been taken with the SENNEBOGEN 825 M material handler." ■

“Our operators feel like the SENNEBOGEN 825 M machine is an extension of them”

and ability to handle a larger grapple has made it much easier for us to handle the used ties. Our operators love the machine's sensitivity and control it offers."

SENNEBOGEN industry-leading raised cab height capability determining factor

Currently McBain off-loads used rail ties from rail cars onto logging trucks at a freight yard about 10 miles from the plant.

its cab to 19' allows the operator to see into open rail car hoppers. For its size, it's the highest in the industry. This was a major deciding factor for us."

The SENNEBOGEN 825 M handler's load capacity, which enables operators to pick up 8 to 10 railroad ties at a time, has already simplified and made McBain's cycle times faster. Vine applauds the

SENNEBOGEN Electric Material Handler Keeps Things Humming At Recycling Operation

Being environmentally friendly takes on multiple meanings for the crew at Remo Recycling AG. Since mid-2015, a SENNEBOGEN 821 electric material handler has been a cornerstone of that ongoing effort.

As part of parent company Hurni AG's corporate standards, the Remo Recycling AG mantra is to recycle and dispose of construction and municipal waste in the most ecologically responsible manner. A unique location offers an additional motivation to use a material handler that works quietly and efficiently with its 121 HP (90 kW) electric motor.

"Due to the proximity to existing housing developments, a main focus of our procurement criteria was on minimizing noise pollution and avoiding emissions," explains Heinz Gstrein, Remo Operations Manager. "This is optimally achieved by the environmentally-friendly electric motor. Not only does the machine work much more quietly, the electric solution also reduced the operating costs by around 70%."

With its crawler undercarriage, the SENNEBOGEN 821 electric material



A trailing cable supplies electricity to the SENNEBOGEN 821 as it moves along a ramp handling waste material at the Remo Recycling AG facility.

handler moves along a special ramp at Remo's Brienne facility, where it handles preliminary sorting and loading of incoming materials at a reach of 36 ft. (11 m). Rails guide the movement of the tracks back and forth along the ramp.

Working in an elevating maXCab industrial cab with bullet-proof glass panes and an inclined windshield, the

operator has an optimum view of the work area during sorting, Gstrein reports after more than 18 months of use.

Equipped with a waste sorting grapple, the SENNEBOGEN 821 can be supplied with electricity via a trailing cable. Thanks to the electric drive, not only are operating costs considerably reduced in comparison to conventional diesel-powered machines, says Gstrein, but the increased service life of all components and longer maintenance intervals are also notable.

Last but not least, the "green image" of SENNEBOGEN material handlers has been beneficial to the progressive reputation of the Brienne operation, which has been in the recycling business since 1987, says Gstrein. "Everything from a single source," is the motto of parent company Hurni AG, which offers earthworks and construction materials, in addition to demolition, material recycling and appropriate disposal. ■



The SENNEBOGEN 821 electric material handler efficiently and quietly sorts and loads materials at the Remo Recycling AG facility in Brienne, Switzerland.





eGREEN

Electric Drive SENNEBOGEN Material Handler Attracts Attention To Nashville Port Facility

Ryan Hollingshead and his brother Jeff along with their father, Mike, operate SRM Concrete, with more than 30 ready-mix locations in Tennessee and Kentucky along with additional plants in Indiana and Florida. This year, they have been enjoying the attention attracted by their latest equipment purchase: a SENNEBOGEN 870 R-HD electric drive material handler.

The big green machine is installed at the SRM loading facility at Hailey's Harbor,

on the Tennessee River near Nashville, TN. It's an impressive addition to the river front, weighing in at 204,400 lb. (92,714 kg) and towering 19' 6" (5.9 m) high as it quickly swings loads of sand, stone, gravel and salt with its 4-yard clamshell bucket.

But what's bringing visitors into the site is the safety of the 870!

"Safety is huge in our company," says Hollingshead. "With that electric machine, you can have an entire conversation while

it's running right beside you. It's just so much safer to be able to talk to the deck hands while they're down there on the barge. With diesel engines, it's so loud, I was having to use walkie talkies." His operators have expressed special appreciation of the floor window in the 870's cab. "You can see all the way through the floor through your feet. There are times when I have to put my guys in the barge. You've got guys down there, so you want to always be safe."

Safety and electric drive go hand-in-hand for SENNEBOGEN, too. "We don't make safety an option" promises Constantino Lannes, President of SENNEBOGEN LLC. "All the guarding and handrails you see on every one of our machines, the sliding door and catwalk on our maXCab, the amount of window space and the dual-camera system for operators – these are standard features."

SENNEBOGEN was also a pioneer in the emergence of electrically powered material handlers. Their low noise emissions are matched by zero engine emissions, making every yard and worksite healthier for employees.

"I'm very impressed with how it runs," Hollingshead continues. "I operate a lot of machines myself and sometimes you might get worried that an electric motor is just not going to lift all that weight. This one runs neck and neck with diesel. I haven't had any problems. It will lift just like a diesel will."

You've got all the power there, it's cheaper on fuel and it provides us with significant maintenance cost savings."

SRM's 870 R-HD is mounted on a crawler undercarriage and receives power through a 200 ft. (61 m) tether cable, allowing the machine to move freely and position optimally for unloading at dockside. According to Power Equipment Company, SRM's local SENNEBOGEN distributor, the same electric drive machine is also available on rubber tires or a fixed mount.

After running the 870 through its first 1,200 hours, SRM noticed that the electric drive appears to get a favorable view from regulatory inspectors, too. "Environmental restrictions are getting tighter and I've had OSHA (Occupational Safety and Health Administration) in here. When they see an electric machine, they just seem easier to deal with. It's better on the environment. With no diesel and no refueling, that's one

less fluid I have to deal with and to keep away from the water."

Lannes notes that SENNEBOGEN's electric drive models are increasingly popular in port applications because of their reduced environmental risk. "All of our customers appreciate the savings in maintenance and diesel costs with an electric motor. However, from an environmental impact perspective, eliminating the potential for fuel spills is especially important to those who operate these machines on the waterways."

Hollingshead has welcomed numerous visitors to the Hailey's Harbor site for a demo of the 870 because, he claims, "Eventually, everybody's going to have to go electric. We're just trying to get ahead of the game. These are friends of ours who are very close to buying a SENNEBOGEN. They're getting on my crane and signing a waiver just to run it. I'm always open to friends stopping by to come in and look." ■

SENNEBOGEN 875 Crawler Portal Keeps Coal Flowing At Historic Arctic Port

Ports are the lynchpins of the economy, connecting countries and companies with each other. At a port in the largest city in the Arctic, an innovative SENNEBOGEN 875 material handler is the lynchpin connecting a rich Siberian resource heritage with today's world markets.

About 4,800 metric tons of Siberian coal arrive at the historic Murmansk port every day by rail. In order to be stored for subsequent shipments, it is unloaded by the SENNEBOGEN 875 equipped with a crawler portal undercarriage and 6.5 cu. yd. (5 cu. m.) clamshell. Coal handling is a key business in Murmansk, which celebrated its 100th anniversary in 2016. Originally named Romanow-na-Murmana after the Russian Czar, the "Cape Town of the North" is located along a bay of the Arctic Ocean. Shaped by its port, the origin of the region's economic growth, the city is actually one year younger than the port of the same name.

Efficient material handling

Equipped with a crawler portal undercarriage, the SENNEBOGEN 875

stands directly over the rails in order to remove the coal with the clamshell. Thanks to a track width of 19' (5.8 m) and a passage height of 16.4' (5 m), the machine's undercarriage spans one of the two railway lines on the site. However, the material handler's reach allows it to comfortably serve both the railway line directly underneath and the one parallel to it at the same time. In addition, the diesel-driven SENNEBOGEN 875 has a range of 78.7' (24 m) and alternately unloads the railcars on the right and left in a continuous cycle.

Machine operators at Murmansk Commercial Seaport commend the "perfect" view from the elevated Mastercab comfort cab. In addition, cameras and LED headlights help provide optimum visibility, even in bad weather conditions. "Thanks to the powerful slewing drive with up to five revolutions per minute, we can manage an unloading cycle in under 30 seconds!"

Delivered in mid-2015 by SENNEBOGEN's local sales and service partner JSC KWINTMADI, the 875 material handler is



equipped with a 530 HP (395 kW) diesel engine and the Green Hybrid energy recovery system. For use at Arctic temperatures, the unit was optimized with a low temperature package, including numerous preheating mechanisms for the equipment and energy recovery system, as well as special lubricants for temperatures down to -35 C.

In addition to the 875 with crawler portal, several SENNEBOGEN 830 and 835 material handlers are in use loading bulk goods at the Port of Murmansk. ■



Owensboro Terminal Manager Turns To “Green” Material Handlers Again After Many Years Of Dependable Service

When SENNEBOGEN material handlers became available in America, Bob Childress was one of the first to put a green machine into service on the Ohio River. Now, he is one of the latest SENNEBOGEN purchasers, too.

“I bought one of the first SENNEBOGEN 825 M units from Brandeis Machinery and Supply (the SENNEBOGEN dealer in this area) for Lanham River Terminal” Childress recalls. “After Yellow Banks purchased the operation here at Davis County Sand & Gravel, and we needed to increase capacity, I knew where to go, back to SENNEBOGEN and Brandeis.”

Handling multiple materials

Childress recently transferred to Yellow Banks from Kinder Morgan’s nearby Owensboro terminal. Yellow Banks’ facilities include 50,000 sq. ft. of covered storage on a 100-acre property with over 1,500 linear feet of riverfront. The two-tiered barge facility moves a wide range of

materials to and from storage: salt, coal, urea, potash and fertilizer, scrap metal and aluminum. Loading and offloading was handled by the SENNEBOGEN 850 M that Yellow Banks owners had purchased in 2008 after seeing a similar model at work at the Kinder Morgan terminal.

It was a year ago that Childress decided it was time to upgrade to a higher volume machine. The 850 was traded in and replaced with a new SENNEBOGEN: an 860 M model fitted with a 5-yard clamshell bucket. What’s on the machine, however, is not as important to him as what’s behind a SENNEBOGEN. According to Childress, one of the most important elements of the SENNEBOGEN operation are its people. “Whenever I have a question, a SENNEBOGEN representative is there with the answer. I really appreciate the attention to detail and SENNEBOGEN’s understanding of our operation.”

Running every day

“The uptime is unbelievable, and the parts support from Brandeis & SENNEBOGEN is just unreal,” he says. “You can get any part for a SENNEBOGEN any time you want.” Childress was convinced of the factory’s support for its products when he met the

“ I knew where to go, back to SENNEBOGEN and Brandeis ”

Managing Director, Erich Sennebogen, while visiting in Germany. “He was nothing but nice when we were over there. And if you have a complaint about a machine, he wants to know it. We’ve got one machine here, and that’s all we have – it’s got to run every day. If there’s a problem, you can’t just go and rent another one down the street. It’s there, and I know it’s going to run. That’s the main reason I go with SENNEBOGEN.”

Improved safety

In many years as a SENNEBOGEN owner, Childress has seen numerous design changes in the product line. The safety features of the current generation stand out most in his mind. “The sliding door to get into the machine and the catwalk and handrail outside the door make it a lot safer for operators. And the new stairs for getting up to the cab are better when it’s wet, or when there’s snow and ice on the machine. And also, the dual camera system – it works very well for backing around the hopper, and when it has to move around to lift off lids.”

From a performance and productivity standpoint, Childress is again satisfied with his choice. “A year into this machine, it’s done everything we expected it to.” ■



The rubber-tired 860 M gives Yellow Banks the mobility to operate from multiple locations on the 100-acre site.

SENNEBOGEN Electric Drive Supplies Worry-Free Power

When Buijs Groot-Ammers Overslag B.V. bought its ninth SENNEBOGEN material handler, the company chose an electric drive model for the second time to keep the environment healthy and to save on fuel costs. “Once electric, always electric,” says engineer Henk van den Dool.

Buijs Groot-Ammers specializes in the transshipment of bulk and general cargo, especially raw materials for the feed industry, and SENNEBOGEN purpose-built material handlers are an indispensable part of their business. The first electric model they tried was the SENNEBOGEN 825 that put in about 15,000 hours within a short period of time without any problems. When the material handling demand increased, Buijs Groot-Ammers opted to upsize to an 830 electric drive.

The 830 has a maximum boom range of 55’8” (17 m), compared to 42’7” (13 m) for the 825, which allows operators to reach the farthest edges of a barge without moving. In fact the 830 is now installed at the edge of the pier.

“We decided to purchase an electric material handler again because it is completely emission-free and, ultimately, it saves money. As well, environmentally



contamination. With the electric drive SENNEBOGEN, not only are there zero emissions, but there is zero chance of fuel leaks and the administrative nightmare that goes along with them.

Of course, the electric drive also contributes to fuel savings. Buijs reports a 50 percent reduction in operating costs when

Buijs can also hear the benefits of going electric. “The new SENNEBOGEN is significantly quieter than our diesel machines,” he says.

Operators appreciate the reduced vibration and noise of the electric drive material handler. In the elevated maXCab, they have the best possible view of the entire worksite for increased safety. A series of cameras and a comprehensive lighting system provide a 360° visibility day or night. With the recent enhancements to the maXCab, including optimized cab, comfort seat and ergonomically arranged joysticks and controls, the electric drive SENNEBOGEN makes an ideal workplace. ■

“*The new SENNEBOGEN is significantly quieter than our diesel machines*”

sound practices promote goodwill in the community,” says Wim Buijs, Director of Operations.

Being located on the historic Aa River, the Buijs Groot-Ammers operation is particularly sensitive to environmental

contamination. Compared to a diesel-powered machine. But it’s not just the fuel savings. There’s no downtime required for refueling. Maintenance intervals for electric machines are significantly longer, and the hydraulic components last longer than in diesel models.



Safe & Sound

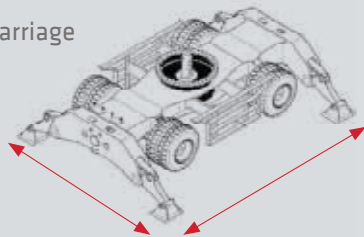
“Safety is not an option” on SENNEBOGEN equipment. We value our customers, so we don’t charge extra to keep them protected on the job! We build all of these safety measures as factory-standard features.

- Limit switches on the boom and stick prevent hanging attachments, such as magnets and grapples, from swinging into the cab.
- Diagnostic system with audible and visual alarms in cab.
- The jump start connection, battery shut-off and main circuit breakers are all easily accessible from the ground.
- With transmission engaged, there is an audible travel alarm.
- Ball valves in the cab and at ground level allow emergency lowering of the cab.

Optional safety features for special needs:

- Bulletproof windshield
- Bulletproof skylight
- Fire suppression systems
- Windshield protection guard
- Skylight protection guard
- Rotation beacon for travel

The footprint of the undercarriage combined with a central swing point allow 360° equal lift capacity.



Hands-on courses at the SENNEBOGEN Training Center familiarize technicians with best practices on how to keep their equipment safe and productive.



A dual camera system including cab monitor ensures 360° visibility. Only SENNEBOGEN provides a right-view and rear-view camera as standard to provide a view past the boom.



With our auto-lubrication system, service personnel do not have to climb on the machines, preventing slip and fall injuries from grease on exposed surfaces.



Wide steps, an access ladder and handrail ensure 3-point contact when climbing from the ground to the upper deck.



The sliding door of the maXCab allows safer entry and exit than a hinged door.



The ergonomic design of SENNEBOGEN maXCabs enhances safety by combating operator fatigue and providing large glass areas on all sides for maximum visibility.

A catwalk and railing are mounted permanently at the cab entry to provide a safe perch for access to and from the cab.

Upper deck fully-guarded by railings; anti-slip mats.



Safety check valves protect operators from falling equipment in the event of sudden pressure losses due to a breaking hose.

Daily lubrication of the undercarriage at front of machine from ground level.



Factory Tour MADE TO ORDER

The built-in value of SENNEBOGEN equipment begins with the “purpose-built” design of our manufacturing facilities.

SENNEBOGEN is able to deliver purpose-built machines competitively because our engineering and manufacturing processes are designed to respond flexibly to customer requests. We use common components across many products and build up finished products as needed.

Established more than 65 years ago, the family firm now employs over 1,200 people in Germany, Hungary, USA and Singapore. These factories have produced more than 45,000 machines in the past 35 years alone.



Each model in the green line can be built to basic specifications, then mounted on the customer's choice of mobile or stationary platforms.



SENNEBOGEN material handlers begin with a wide range of common components that streamline customization and also simplify aftersale parts and service.

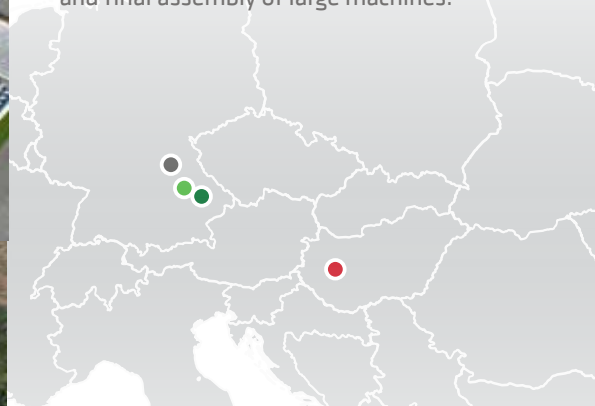


Straubing I ●

Our corporate headquarters was built in 1959 on an 11 acre/4.45 hectare site on the Danube river in southern Germany. Office & production space here totals 172,000 sq. ft./16,000 m² and provides employment for approximately 200 workers. Manufacturing activities focus on the assembly of base carriers and the fabrication of steel components.

Straubing II ●

A major expansion in 2008 more than doubled SENNEBOGEN's physical plant space in Straubing. Located on 30 acres/12 hectares near the original plant, our second facility in Straubing is home to SENNEBOGEN research & development and final assembly of large machines.



Balatonfüred ●

Best known as a lake resort, this town in the west of Hungary also provides an important link in the SENNEBOGEN manufacturing process. The 235,000 sq. ft./22,000 m² facility was integrated into the group in 1996. Its 300 employees are responsible for the fabricating of steel components as well as the machining of steel structures.

Wackersdorf ●

SENNEBOGEN built its second factory in 1991, located one hour north of the corporate head office. As our resources have grown, the Wackersdorf plant has been designated as the main site for final assembly of *green line* material handlers. The 270,000 sq. ft./25,000 m² office and production facility is staffed by 200 employees.



THE TRAINING CENTER Helps Dealers Improve Service



Dealers and end users are reaping the benefits of hands-on training at the Training Center in Stanley, NC. Customers find they can reduce downtime by working through some issues on their own, and dealers report that the training gives them a competitive advantage in service excellence.

At Metro Group, Inc., Utah's premier metal recycling and transloading company, SENNEBOGEN trained company technicians perform most of the maintenance on their fleet. "A lot of OEMs don't want to show anybody else how to service their machines," says Mark Bond, President of Metro Group. "It's a big advantage for us to be able to work on our own machines."

For dealers, better training means better service. Pat Callahan, Manager of Parts and Service for Strongco's Nova Scotia operation says it is worth the time and long distance travel to the Stanley Training Center. Callahan regularly sends

his technicians and members of their Parts Department for the free advanced technical training and specialized parts courses offered by SENNEBOGEN.

"Wow, was my first impression," says Bill Schoenfelder, President of The Victor L. Phillips Co., a SENNEBOGEN dealer. "I cannot say enough good things about the staff, the facility, the commitment and the vision that SENNEBOGEN has set forth in Charlotte. SENNEBOGEN provided outstanding support with product and service specialists on hand to conduct the training - well worth the time."

Dave Harris of Anderson Equipment said he values the focused, hands-on instruction he received at the Training Center. "I like the accessibility you have to a clean machine ... sometimes you go to training where everything is on paper and you can't relate it to the real product. Here, we can see where we would find things on the machine if we need to repair it in a hurry in the field."

"It's a good program from the classroom to the machine," says Dennis Boulet, Operations Manager, Port Hawkesbury Paper LLC. ■

SENNEBOGEN COURSES

Service Level 1 D-Series
Service Level 2 D-Series
Service Level 1 E-Series
Service Level 2 E-Series
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Parts Training

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**ALL KITS IN STOCK
AND READY TO SHIP**



All included parts meet factory standards to comply with warranty conditions

Show Your True Colors!

Visit our online store and “go green” with our wide selection of great SENNEBOGEN merchandise!

- SENNEBOGEN branded shirts, hats and all-weather wear
- Precision die-models
- Handy tech products, decals, golf balls and more!



**The
SENNEBOGEN
Store**

store.sennebogen-na.com



Scan here to shop online





The warehouse stocks complete inventories of service and repair parts for every model.

“ Every year SENNEBOGEN continues to invest in our facilities, staff, inventories and services – because we believe in the strength of our distributors and their customers. ”
Constantino Lannes



The SENNEBOGEN 100,000 sq. ft. (9300 m²) facility in Stanley, North Carolina is built on a 33 acre (13.4 hectare) site and includes the offices, Training Center and warehouse.



Our Commitment



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