

# UPtimes

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# SENNEBOGEN®

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



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# From Where We Sit



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Sennebogen*

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## Welcome to the 2018 Edition of UPTimes!

We are thrilled by how well our magazine has been received by distributors and customers throughout the Americas. Your support and interest in our jobsite reports and articles is another reason for us to celebrate SENNEBOGEN's 65 years in operation!

We were proud to announce that Anton Sennebogen, **the first member of the third generation has joined the firm.** He started in the Corporate Controller's office last summer.

In a recent interview, Anton expressed how his internships in various departments, through his younger years, exposed him to **"the SENNEBOGEN way"**. "Family companies can think more long term, they are not hamstrung by having to present good news every six months or at the end of each quarter," he said. "Lots of our employees have been with the company for a long time; as a family business, we are there for our guys even when times are tough. We can respond flexibly and start reinvesting while other companies are still sitting and waiting to see what happens."

Clearly, Anton understands the values, obligations and opportunities that come with leading a family-owned international enterprise and will be a valuable addition to the organization. We have invested strongly in building future generations at every level. One of our most valuable initiatives is the apprenticeship program offered through each of our factories. The program offers hands-on training for young people in **14 different trades and vocations.** Through these 2-year and 3-year apprenticeships, we ensure continuous development of the best in human resources, from welding and fabrication skills to business processes and warehouse logistics.

We were also able to mark the start of our 65<sup>th</sup> anniversary with another important milestone in our growth. After 2 years of construction, the **376,000 sq. ft. (35,000 m<sup>2</sup>)** addition to Straubing Plant 2, is now operational.

The new space at Straubing 2 will mean increased storage for components, a restructured shipping area and additional room for machine production and assembly. As the demand on the machines has grown, our machines have had to keep pace. Furthermore, the product offering is growing and at the same time, we have to factor in room for future developments. On a positive note, barely a year goes by without any construction, optimization and expansion work going on at one of our sites.

Here in North America, **SENNEBOGEN Capital helps operators tailor their leases** to their needs while our **no-charge training courses offered in English, French and Spanish** continue to prove popular with our dealers and their customers. Our SENNEBOGEN Training Center at our offices in Stanley, NC, provides hands-on technical factory training **for service technicians and parts supply staff as well as a machine operator familiarization course.**

Furthermore, we are continuing to expand our horizons with **new machines and new applications.** Whether it is in a MRF, a tree care industry application, a pipe handling operation, a sawmill in the harsh and cruel environment of Northern Canada, a tire recycling operation or in a traditional scrap yard feeding a shear, baler or shredder, we are providing the marketplace with purpose-built machinery that is custom built for that customer's operation. On page 14, read how an arborist describes his **SENNEBOGEN as a game changer** and on page 12, we show how a biomass company has selected a **SENNEBOGEN to help diversify America's reliance on traditional fuels.**

In this issue of UPTimes, you'll see what's new and what our customers are up to. Regardless of your industry, there's something here for everyone! Enjoy the read.



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# A GREAT DAY AT THE OFFICE!



## The redesigned Maxcab takes operators to a new level of comfort, technology and visibility

A signature feature of all SENNEBOGEN material handlers is the industry-leading Maxcab operator station. It has been updated once again and sets the new standard in ease of use, jobsite visibility, safety and comfort. The Maxcab interior has always been impressive using high-quality materials while providing plenty of storage space. The new edition is even quieter thanks to enhanced insulation. The multi-adjustable air-suspension comfort seat makes this office the best place to work.



### What's new:

- More room: length increased 2.75" (70 mm)
- Climate comfort seat with AC & heating
- Cell phone holder with 12V, 24V and USB adaptability
- Flush floor mats for ease of cleaning
- Improved positioning of speakers & AM/FM radio
- Large entry door & rear window
- Larger sliding window
- Improved air circulation
- LED headlights

Maxcab's innovative steel sliding door and guarded catwalk provide the safest entry and exit in the industry.

Ground to cab handrails and upper deck guardrails ensure that operators and technicians can have a secure 3-point grip to and from the cab and service areas.

The Maxcab's hydraulically elevating mount lets operators rise above obstacles for a direct look into bins, trailers, hoppers and holds, coupled with a wide-angle 270° view of nearby traffic and workers.





Now standard on all new SENNEBOGEN material handlers, Maxcabs are equipped with a bullet-proof windshield and skylight. Optional heavy-duty guarding offers additional impact protection for operators in hazardous applications.



With its maximized window area and dual camera display, the Maxcab opens up a clear view of the work zone on all sides, above, below and behind the operator station.



## A "JOY" TO HOLD

Our ergonomically designed SENNEBOGEN joysticks are easy to hold and provide a direct, responsive control; always within comfortable reach no matter how you adjust the seat.

- Consoles and joysticks move with the seat
- Optimized design and placement of all buttons and switches
- Precise control of highly responsive hydraulic system
- Quick, easy access to all operating controls



# SENNEBOGEN Increases Capacity of Pinellas County Waste Facility



*The grapple system of the SENNEBOGEN 818 E is ideally suited for handling tires.*

Boasting one of the most advanced waste management systems in the Southeast United States, the Pinellas County, Florida, Solid Waste Management Facility has been a part of an aggressive

“We have about 100,000 tons that we could burn if it were smaller for the plant,” said Merrell. “We think we could shred about 50 percent of what goes to the landfill now.”

Several features of the SENNEBOGEN 818 E-Series are working well for the county, including its 360 degree one half yard rotating grapple and the bird’s eye view from the elevated cab, which eliminated the need for another set of eyes to monitor the progress of the grinder as materials are added. The grapple on the SENNEBOGEN 818 E-Series also is suited for handling tires, which due to the high levels of pollutants, cannot be fed directly into the incinerator. However, if the tires are ground and mixed with other combustible materials, the emissions are no longer an issue.

## “The design of the SENNEBOGEN 818 E-Series will be part of the solution for Pinellas County”

solid waste management program for several decades. The county has an energy incinerator, which allows it to burn a significant amount of its solid waste, and in the process, the county has been able to make a profit from its solid waste management operations.

“We are very proud of what we have done here in Pinellas County and we’re always looking for ways to improve,” said Michael Merrell, Solid Waste Program Manager of Pinellas County. “Our current landfill has the capacity to operate until 2104 and anything we can do to extend the life expectancy of the landfill benefits everyone.”

Recently, Pinellas County took delivery of a SENNEBOGEN 818 E-Series mobile material handler from Great Southern Equipment Company, Tampa, Florida, to expand its efforts.

“Our current goal is to burn more and bury less but our biggest obstacle to incinerating more solid waste is the size of the items that the current feeding system can deliver into the incinerator. The feeding system design limits us to incinerating items that are three-and-a-half feet in surface area or smaller.”

According to Merrell, the design of the SENNEBOGEN 818 E-Series will be part of the solution for Pinellas County.

“We are in the process of creating specification and bidding out a shredder that will meet our needs,” said Merrell. “However, before purchasing the shredder, we needed to purchase a material handler to feed the shredder. That’s why we purchased the SENNEBOGEN 818 E-Series.”

Merrell also had high praise for his dealer, Great Southern Equipment Company.

“It was great to work with Great Southern Equipment Company,” said Merrell. “They took the time to make sure we would be satisfied with their recommendation and they made sure we purchased the right size material handler. I enjoyed the time and experience of learning from GSE. We not only got a great piece of equipment, but also got exceptional service.” ■

*\*\* Reproduced with permission from Construction Equipment Guide.*

## Did you know...



... that you can order “Uptime Kits” with all the service parts you need to complete the planned maintenance needs of your specific machine? SENNEBOGEN’s warehouse in Stanley, NC keeps them in stock, ready to ship.

Save time in the shop and on field service calls – easy to order, easy to stock!

- Electrical Kits
- A/C Service Kits
- SAE Flange Kits
- Nut & Washer Kits
- Fitting Kits
- O-Ring Kits
- Plug & Connector Kits

**And many more!**



# 24/7 SENNEBOGEN Material Handlers Keep Up To The Hectic Pace At Regina Steel Mill

In just six years, SENNEBOGEN material handlers have carved out their place at EVRAZ North America's giant Regina Steel Division Yard. So much so that they are not only integral to current operations, but as future solutions in potential yard configurations in different tasks, says Kris Vancha, Site Maintenance Superintendent.

EVRAZ North America currently has several SENNEBOGEN 850 M machines working at the giant Regina steel mill.

"It is all scrap transfer. If it's an offloading situation, these machines will be emptying outgoing railroad cars and putting the scrap into the inventory piles," says Vancha's associate, Kevin Hicks, Area Manager of Yard Operations, "and when it is time to fill the railcars going to the melt shop, it'll be coming from the piles and loaded by these same machines into our internal fleet of railcars."

With its four rotating crews, EVRAZ North America's Regina yard operates 24/7. During the day shift Monday through Friday, when tractor-trailers are constantly moving in and out of the yard, the material handlers work safely in close proximity to one another. When



*With 21,000 hours of service and counting, the original SENNEBOGEN 850 M material handlers on site remain integral to current and future operations at EVRAZ North America's Regina Steel Division Yard.*

an opportunity presents itself at other times of the day or night, they can then be quickly moved and spread throughout the yard to maximize production.

a time and then put it away and go grab another empty railcar," he recalls. "With the SENNEBOGENs, now we can set up 10, 15, 20, 25 railcars – as many as we

*“ The elevated-cab design is a key factor ”*

## **Not your father's material handler**

"We used to run rail-track mobile cranes, and we would have to load one railcar at

need – and load them all without having to move them. Being able to set a string of empty railcars up at three, four or five different piles of scrap and then be able to access all of those cars in succession is huge for us, not only in terms of time, but it's way better for overall production."

The elevated cab design is a key factor in the material handlers keeping up with the Regina yard's busy demands, as well as operator safety, says Hicks.

"Back in the old days with the cable cranes, when you were offloading a railcar, you would have to get out of your crane, walk over and climb up on the car to make sure that the car was empty," he recalls. "Now with the SENNEBOGENs, being able to position yourself at the middle of a car, elevate the cab and see what's left inside the car is huge." ■



*Operators at EVRAZ North America's Regina Steel Division Yard give a big thumbs-up to the SENNEBOGEN 850 M material handlers for their productivity and creature comforts, says Kevin Hicks, Area Manager of Yard Operations.*



# “Hands-On” Experience Leads RMG To SENNEBOGEN Scrap Handlers

Luke Wyatt likes to learn by doing. Now a co-owner of Roane Metals Group LLC (RMG), Luke learned the recycling trade on the job, working alongside his father-in-law, Albert Baisley, at Rockwoods, Southern Alloys and Metals. When RMG began, they used the hands-on approach to learn their way around scrap handling machines.

“We tried all the usual suspects: different types of loaders and different dealers,” Wyatt reports. “One machine might be a little quicker. Another might have a stronger boom. But at the end of the day, it just made sense to put all our eggs in one basket, we chose the best machine with the best dealers. We figured that’s how to make sure we have the dealer’s attention when we need support.”

Lessons learned: for RMG, the right combination was SENNEBOGEN purpose-built material handlers, backed by the nearby Power Equipment dealership.

## Long-life service

“We got our first SENNEBOGEN, an 825 M, from Power Equipment in 2007. It’s still doing all our loading work in Crossville, with over 26,000 hours on it. It still runs on all its original pumps. It’s done pretty dog-gone well for us!”



*From this perspective, the elevated cab allows the operator to see right into the box.*



Gary Hirsch, Vice President and General Manager of Power Equipment says it’s no surprise. “Purpose-built material handlers are the way to go. And SENNEBOGEN has invested heavily in its US-based parts inventory and factory support services. Providing first rate customer service is the driving value behind Power Equipment and we were thrilled to have represented SENNEBOGEN for the last 10+ years.”

## Continuing investment

RMG recently took delivery of their newest SENNEBOGEN machine, an 835 M E Series model. All of their SENNEBOGEN equipment runs on rubber tires, but the new machine is dedicated to feeding the site’s 750-ton Sierra shear/logger/baler. The operation sorts, grades, shears, compacts and ships up to 70,000 tons of ferrous and non-ferrous

metals per year. The other SENNEBOGEN units offload material trucked in by customers, and prepare loads for shipping by truck or rail.

“We put the new 835 M in the hands of our longest-serving operator, Darrell. He keeps the material moving 8-10 hours a day, every day. The elevating cab puts Darrell over 18 feet in the air, so he has a good look into the shear.”

“*Purpose-built material handlers are the way to go*”

The learning process will continue at RMG. Wyatt has plans to send his technicians to the SENNEBOGEN Training Center in Stanley, NC soon. “We appreciate the support we get from Power Equipment,” he says. “But if we don’t have to call the dealer every time we need to service the equipment, that works for me too!” ■



# Team Effort Comes Together On SENNEBOGEN For Municipal Waste Coalition

While “decision by committee” is a daunting prospect for many equipment purchasers, a coalition of municipal solid waste facilities in northern Minnesota found that a team effort achieved the best result. Brian Olson, the Solid Waste Coordinator for Beltrami County, explained the process.

“We invited several manufacturers. We wanted to make sure we were getting the right machine. We had our machine operators, our mechanics and our administrators all take part in evaluating the proposals. And that’s how SENNEBOGEN came out on top.”



## Multi-county upgrade program

Each County in the coalition operates its own local transfer stations, targeting 35% recovery of recyclable material.

## Flexible configuration

Olson notes that the 818s delivered to date are not quite identical. “One factor in SENNEBOGEN’s favor was that each machine is designed specifically for the facility that it will work in. We had the CAD drawings to be sure the boom & stick were the right lengths. We also wanted rubber-tired units because they are running on a concrete floor here and running indoors.”

“One of the big things that sold me was the ability to do all the servicing from the ground. The usual wear parts and hoses are all very accessible.”

## Safety for staff & facility

Olson and his group were further impressed by the 818’s safety features. “I’m glad you can walk out



onto a platform from the cab, you don’t have to crawl up into the machine. We also equipped it with a front protection guard and a guard on the skylight; installed boom limit switches to suit our ceiling height and added the lighting package. Environmental factors were important in our decision, too - especially noise. You can hardly hear this 818 run, so that was another positive point in its favor.”

The new machine also protects itself from stresses on the tipping floor. “The 818 has an optional boom float capability that means that you can pick without putting pressure on the grapple or the floor.”

With just 200 hours on it, the 818 M has already proven its merit. “Our operator has been running a material handler for years. There wasn’t much of a learning curve, he just went in and got to work, said Olson.” ■

## Thibodeaux Makes First Impressions Last With SENNEBOGEN

Tim Thibodeaux takes pride in his scrap handling equipment and it shows!

Tim and his Dad, Louis, started taking on large demolition and scrap recovery projects on the Gulf Coast in 1983. When Louis retired from Thibodeaux & Son Scrapyard 10 years ago, Tim stepped up to manage the business. But he’s still a mechanic at heart.

His focus on maintenance is reflected in his choice of scrap handlers, too. A number of SENNEBOGEN green

machines handle a full range of duties in the Thibodeaux yard and beyond. SENNEBOGEN has been his scrap

“Access to the engine and the working parts is excellent”

handler of choice for years and his original 835 M machine still looks and runs like new.

“I like the maintainability of SENNEBOGEN equipment,” he reports. “Access to the engine and the working parts is excellent.”

## Good impressions build business

Thibodeaux has another motive for ensuring that his fleet is safe and well-maintained: it builds business!

His SENNEBOGEN machines are busy unloading trucks, feeding the shear and loading barges with 1,400 tons in just 1 day. “It used to take up to 4 days to load

# SENNEBOGEN People And Machines Are The Right Combination For CRC Scrap Metal Recycling

When Blake Stanley graduated from college, he immediately joined the new metals recycling company that his grandfather, Ronnie Strange, had started up just months before.

CRC was well equipped for local business with its 750-ton logger/baler/shear and a rubber tired material handler. Building the firm's supply of whole cars, industrial scrap and residential retail scrap, Blake became active in his local community, in Duncan, SC, and he currently serves as President of South Carolina Recyclers Association, Inc. (SCRA).



*Loading the logger/baler/shear is a primary responsibility of the SENNEBOGEN 825.*

*“ We knew we could trust Rob, and if we had a problem, that he would take care of it ”*

## Building on trust

When the yard encountered problems with an orange peel grapple, Blake reached out to a fellow member of the SCRA, Rob Jordan, the SENNEBOGEN material handling specialist for nearby

Ascendum Machinery, Inc. “We were getting frustrated, then Rob came in and sold us a new SENNEBOGEN grapple that we’ve never had any issues with,” Blake recalls. “At that point, we knew we could trust Rob, and if we had a problem, that he would take care of it.”

## Wearing many hats

CRC’s business did keep growing. While their original machine stays busy offloading trucks at one end of the yard, a new SENNEBOGEN 825 M now feeds

the shear and handles loading duties for outbound trucks. “Our crew appreciates the maintenance access they get on the SENNEBOGEN and the fact that it uses minimal electronics. It’s built heavier than our other unit. And our operators appreciate having the lights on the boom for a better look at their loads.”

Like the people at CRC, the new 825 M is proving to be comfortable wearing many hats. “Loading or unloading, sorting and feeding the shear, it’s a very diverse machine for us.” ■



a barge of that size but with our SENNEBOGEN, we load it and get it on its way in a day and then it goes on to doing something else.” Thibodeaux sends the new 830 M-HD-S out to load and sort material for his offsite projects too. “The appearance of the 830 green machine makes a good impression on customers, offsite. They

see we have reliable equipment; that we can move in, do the job and get out fast. No muss, no fuss, no downtime.”

## Factory training

To keep up his fleet’s great appearances, Thibodeaux will be sending his own technicians to Stanley, NC, later this year for advanced instruction at the SENNEBOGEN Training Center.

“We like to be self-sufficient,” he says. “It keeps us ahead of everyone else. We take care of the machines and they take care of us.” ■



# SENNEBOGEN 818 M Log-Handler Will Feed New “Clean Energy” Projects For ACGE

The year-old AC Global Energy (ACGE) plant near Knoxville, TN, is a new production facility designed to convert biomass into drop-in the tank fuel. As one of the first commercial application of new “clean energy” technology, the facility was developed as a turnkey operation for ACGE to process locally harvested pulpwood into energy products.

At the front end of the process is a log-loading station that receives truckloads of wood to be fed into a primary chipper. In the center of the loading station is a purpose-built SENNEBOGEN 818 M rubber-tired log-loader, which unloads and stacks the wood, then feeds it to a

Laimet helical chipper. The wood chips go through secondary processing before entering a patented CHyP (Cellulose to Hydrogen Process) reactor for conversion into a hydrogen-rich synthetic gas.

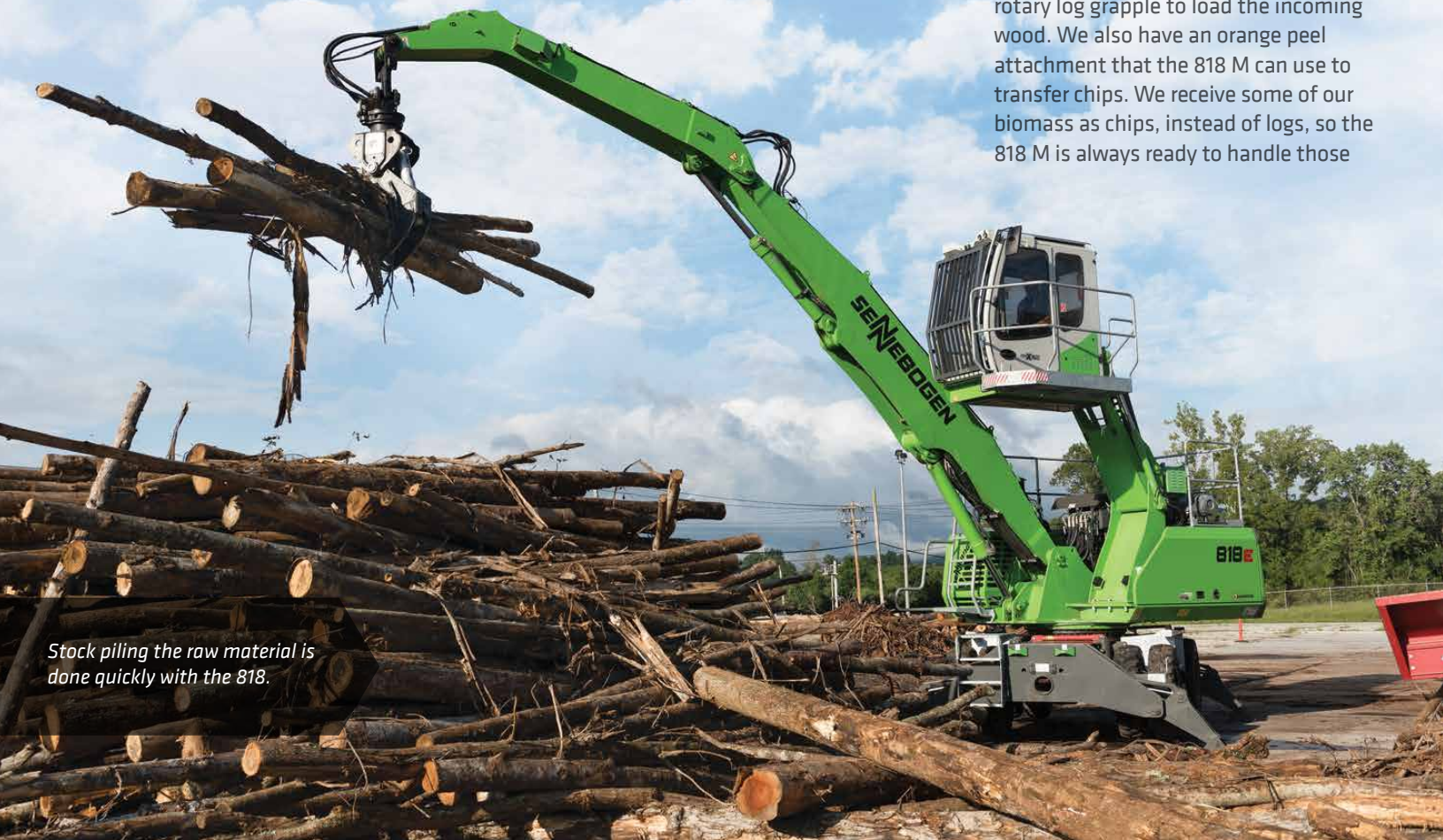
## “Clean energy” for diesel and electrical power

ACGE is a Singapore-based development company specializing in “clean energy” projects. According to John Borden, ACGE’s Business Development Manager in North America, the Knoxville plant is just the first of multiple sites that the company foresees for other nearby centers in the future. As the Knoxville operation ramps up in 2018, Borden expects to see it processing as much as

500 tons of wood per day and output up to 7,000,000 gallons of drop-in the tank diesel annually. Secondary streams produce marketable co-products including wood vinegar and premium bio-char.

## Versatile loading for start-up project

The SENNEBOGEN 818 M provides ACGE with a versatile, purpose-built machine that can handle multiple duties as the operation works up to full capacity. “We considered installing a more traditional stationary loader near the feed deck,” says Borden. “But we decided that a rubber-tired log loader would give us more flexibility. We equipped it with a Timber Grab SGH rotary log grapple to load the incoming wood. We also have an orange peel attachment that the 818 M can use to transfer chips. We receive some of our biomass as chips, instead of logs, so the 818 M is always ready to handle those



*Stock piling the raw material is done quickly with the 818.*

loads as well as feeding chips into the next stage of the process. It's even strong enough to pull a decent size log trailer."

#### "Always the leader"

Borden is very familiar with the end-to-end process, having worked the pilot team for four years. "For our loading applications, SENNEBOGEN was always the leader, in my mind. We did our due diligence on other machines, but I saw SENNEBOGEN's aftersales capabilities in Stanley, NC, and that was a key factor for us. The head

“ I will definitely be looking to SENNEBOGEN again ”

office, parts warehouse and training center are very impressive.”

"Our operators like the 818 very much, too," Borden continues. "It handles very well, and the elevating cab gives them a very direct look into the trucks they're unloading. The first few trucks were taking longer to unload but, with some experience now, we're down to about 15 minutes per truck."

"I will definitely be looking to SENNEBOGEN again when we're ready to open our next plant. We're very happy with the service from their distributor here, Power Equipment. Once the CHyP process and the rest of this operation is fully verified, we will be set to repeat the program in new locations." ■

## Former Excavator Operator Right At Home With Purpose-Built SENNEBOGEN Material Handler

Chris Zwicky has spent much of his life operating excavators. But, only a few months after climbing into the spacious cab of a purpose-built material handler, he's already sold on the advantages that the SENNEBOGEN 818 M offers his family's busy earthmoving, processing and biomass production business in eastern Pennsylvania.

"My dad, David, started the business in the '50s," says Zwicky. "We used to dig ditches and bury all the trees," he says, "and then, in 1989, we decided to buy a grinder and grind up the vegetation instead of burying it. We were about the first in the area to do that, so it took a while to catch on." But catch on, it did. The family-owned business currently employs 62 people.

Today, Zwicky Processing & Recycling, a 1,000 ton-a-day C&D operation also produces biomass fuel for power plants, lime kilns and other boiler operations in the region.

#### Purpose-built machine offers much-needed visibility

Last fall he ventured over to a friend's nearby scrapyard to check out their new purpose-built SENNEBOGEN material handler. Equipped with the Maxcab elevating operating station, the SENNEBOGEN material handler was receiving good reviews for its



*The purpose-built SENNEBOGEN 818 M loads a large slow-speed shredder as part of biomass production operations at Pennsylvania's Zwicky Processing & Recycling, part of W.D. Zwicky & Son Inc.*

smooth operation, easy handling and simple maintenance.

Zwicky liked what he saw, too. Soon after that, a SENNEBOGEN 818 M, at 48,000 lb. (21,772 kg) and 132 HP (98 kW), was brought to his yard. "They let me run the SENNEBOGEN to demo it and it never left," he says. "I like the power, I like the extra reach and the visibility is great. The cab is nice because it is so much bigger than the cab you get on the dirt machines."

#### Machine design and size fit Zwicky's needs

Being purpose-built for material handling, the SENNEBOGEN offers lift capabilities that are by far better than a digging-oriented excavator, says Zwicky. After

a quick adjustment to the structure, geometry and the responsiveness of the hydraulics, there was no looking back ... or, in his case, no more looking up.

"It's definitely the cat's meow for unloading rail cars and loading railroad ties into trailers from the rail cars." Equipped with a 360-degree rotating grapple, "it's also increased my throughput on the horizontal grinders and the shredders that I feed with it," he says. "I can get up there and see what's going on inside to make sure the wood's lined up correctly." ■



# Improving Safety For The Urban Forester

Professional arborists are a vital part of America's quality of life. As we become increasingly aware of the value of trees in the urban environment, we rely more on the skilled arborist to maintain the health of woodlots, parks and gardens, and to restore

safety to our streets after storms topple trees and strew limbs over the landscape.

## **But it's dangerous work.**

The urban forester works at heights with powerful tools in shifting conditions. Jobsite safety is a constant focus for professional arborist associations.

## **It's a familiar theme for SENNEBOGEN.**

Our experience with developing machines that are purpose-built to combine power and precision in elevated operations led to the 718 material handler. With a complete range of specialized attachments for trimming, harvesting and loading operations, the 718 is beginning to make its mark in urban forestry as a versatile machine that enhances productivity and reduces the cost of tree maintenance, while it keeps arborists out of harm's way. ■



# Embankment Maintenance On The Autobahn

One of the world's most famous highspeed highways, Germany's Autobahn A8 is also one of the country's most scenic routes passing the foothills and steep inclines of the Alps en route to Austria.

Hälbich Dienstleistungs GmbH specializes in maintaining Autobahn's many bridge embankments and underpasses. Since 2016, the firm has deployed its SENNEBOGEN 718 to keep the throughways clear. With a cutter

head attached to the 718's 43' (13 m) telescoping boom, operators securely grab and chop soft wood up to 10" (25 cm) in diameter from the roadside.

The compact size of the 718 is ideal for this kind of road work. This rubber-tired machine can drive itself from site to site without any special permits. Then its small footprint and tight swing radius allows it to complete its work without interrupting traffic. ■

*The range and flexibility of this mobile machine means autobahns, railways and roads can be cleared more quickly and more safely – the ideal machine for us.*

Max Steinecker, Operator  
Hälbich Dienstleistungs GmbH

# Sure Footing On Tricky Terrain

The first thing that you notice when you see any equipment owned by Switzerland's Fällag AG, is the efficient productivity of their equipment, with 20 years' experience in arboriculture.

The company has been working with its SENNEBOGEN 718 M since 2013. The mobile machine is equipped with a grab saw attachment for thinning out the edge of forest, or for felling problem trees on boulevards and in gardens. To maintain inclined embankments and culverts, it switches to a mulcher attachment which can even chop rootstocks up to 12" (30 cm) in diameter. The 718 provides a stable footing on its wide single tires on, with 2-point outriggers to balance and distribute the load on slopes and soft soils. ■



# A Clear Path To Safety For Hikers

*The SENNEBOGEN 718 is the perfect machine for felling problem trees and harvesting wood for fuel. The machine stays absolutely rigidly in place, even on difficult-to-navigate, wet ground.*

Matthias Möller, Owner  
Forstbetrieb Möller

The cottonwood trees lining a well-loved hiking path along the Rhine River are only 60 years old, but already their trunks can reach 6' (1.8 m) diameters or more. Falling branches from the giant trees can now pose a danger to the public.

Forstbetrieb Möller, based in the Westphalian town of Willingen, was assigned to create a safer walk for

users of the trail by felling and recycling the trees. The current job involved felling and recycling around 50 trees along a mile and a half (2 km) stretch of the path. Using a grapple saw and a 43' (13 m) cantilever arm, the heavy branches can be precisely gripped and safely removed. A 4-tine grapple first moves trunks and branches to the edge of the path. ■

See the 718 in action



# Purpose-Built SENNEBOGEN 718 Earns Praise From Boston-Area Tree Service Company

When it comes to tree service equipment, “I feel like I have seen everything there is,” says Dan Mayer. “It is hard to impress me.”

As a self-described YouTube enthusiast, he is constantly on the look out for

## Always seeking a better way

Taking a bold step in a normally modest and traditional industry is nothing new for Mayer, who started his Boston North tree pruning and tree removal business in 1995.

“These people are very flexible,” says Mayer, “and are completely interested in feedback and knowing what would work best for us here in Massachusetts and southern New Hampshire.”

## SENNEBOGEN 718 proves the right fit

As a purpose-built material handler, the wheeled SENNEBOGEN 718 is more efficient and nimble than other carriers, be they modified excavators, cranes, or the forestry machines used on larger tree removal projects, says Mayer.

“The 718 is ideal for ‘urbanized applications’ such as residential, roadside, parks and golf courses,” the core of the Mayer Tree Service business.

The low ground pressure makes this 48,000 lb (21.5-metric-ton) material handler particularly efficient on sensitive lands,

such as golf courses. In one of Mayer’s first revelations with the machine, the 718 equipped with a 43’ (13 m) reach including telescoping stick brought down and carried out trees between a roadway



SEE THE 718  
IN ACTION



machinery anywhere in the world that can benefit his busy Mayer Tree Service operation in the Boston area. When a trip to a jobsite in Switzerland brought him face-to-face with a mobile SENNEBOGEN 718 material handler equipped with a saw head, he knew that this is what he had been looking for.

“I saw what the machine did over there for a tree company of similar size to our company here in the U.S.,” says Mayer, “and that’s what made me pull the trigger. We actually brought the first one into North America.”

“The SENNEBOGEN 718 blows me away every day,” says Mayer. “This has been a game changer with just how many trees the SENNEBOGEN takes down, precuts and stacks safely and efficiently.”

With the constant search to stay ahead, “to reinvent myself again,” Mayer says he could not have asked for a better fit when the versatile SENNEBOGEN 718 rolled into his view during his trip to Switzerland.



Equally impressive were the subsequent meetings with various company representatives, from Chairman and Managing Director Erich Sennebogen in Germany to SENNEBOGEN LLC President Constantino Lannes and other members of the company’s North American team.

“It’s like when you have been copying everything by hand and then somebody shows up one day with a photocopier.”

and a riverbank while cycling three swamp mats to create the necessary path. “I was blown away by how our operator was able to use just three mats, hopscotch them, cut the trees, and then come back to the road with everything.”



“Erich Sennebogen said it perfectly - The excavator is the ideal machine for digging a hole. There’s no better design out there for digging into the ground and below. But when you are talking about picking things off the ground and putting them up high or picking them up high and putting them down on the ground, then it’s the SENNEBOGEN,” says Mayer.

“*The 718 is ideal for ‘urbanized applications’ such as residential, roadside, parks and golf courses.*”

**A welcome addition to a busy operation**  
While always looking for the next great equipment solution, Mayer Tree Service was built “by doing our work safely and efficiently.”

“This 718 has enabled me to grow without having to add any extra people, which is really huge for us,” says Mayer. “We have more equipment than people, which I think is a good model.”

With its elevated Maxcab, the SENNEBOGEN 718 offers visibility and operational advantages for the Mayer Tree Service operators, who are now able



to look more directly into the trees when cutting, rather than straight up. “And it’s so quiet. The only sound you really hear is when the hydraulic saw comes out of the tree,” says Mayer, who gives a big thumbs-up to the combination of reach, versatility, mobility and fuel efficiency.

“Three or four days into a project and it will still be on its first tank of fuel,” he says. “Some of our other machines need a fuel truck strapped to them. You need to fill them every day.”

In Mayer’s view, “the engineering is where it’s at. The SENNEBOGEN doesn’t do everything;” he says “but when it is



“*This 718 has enabled me to grow...*”

doing its thing, you can’t touch it. It is off the charts.” Describing the machine as a “complete disruptor” in his sector, he is naturally glad he was able to have it first.

“We’ve been doing this for a long time without this particular equipment,” says Mayer. “It’s like when you have been copying everything by hand and then somebody shows up one day with a photocopier. It’s that big of a difference.” ■

See the 718 in action



# Customized SENNEBOGEN Proves Made-To-Order for Stella-Jones' Rail Tie Yard

Handling nearly a million railroad ties each year, the Stella-Jones site in Bangor, Wisconsin is about as specialized as a wood yard can be. When Division Manager Liz Russell went shopping for a new material handler, it just made sense to acquire a machine that's as specialized as the job.


Now, almost a year after delivery, Russell's new SENNEBOGEN 818 M E-Series machines have proven to be a perfect fit. The company worked

closely with SENNEBOGEN and Roland Machinery to select and outfit the machines.

Bangor is one of 14 Stella-Jones locations in North America that produce railroad ties. The facility receives untreated crossties and switch ties from sawmills across the Midwest and then trims the ends, adds end plates to prevent splitting and separates them by length, grade and species. After drying, the crossties are treated with creosote and bundled for shipping.

"We knew for a while that we wanted to do something different with our material handlers," Russell continues. "The team at Roland was great about getting the information and the specs we needed. When we had the opportunity to switch machines, we were ready and trusted them to help us do that."

**Specially equipped to move more ties**  
Weighing in at 48,060 lb. (21,800 kg) and powered by a 132 HP (98 kW) Cummins engine, the rubber-tired 818 M is a nimble but powerful unit that's right



At Stella-Jones' rail tie facility in Bangor, WI, SENNEBOGEN 818 material handlers help ensure that the 140-acre site runs smoothly and efficiently. "They are moving all of the time," said Division Manager Liz Russell. "Our operators are either loading or unloading ties for the entire 18 hours a day."

at home in heavy log-loading duties. The machines typically work on the facility's operating pad, loading and unloading ties before and after treatment. They are also used to help load and unload trucks and rail cars, as well as to transport ties around the yard.

The Bangor staff took the 818s to the next level with a few customized features. The first upgrade was to fit the machines with Stella-Jones' specialized grapple, developed over years of experience. As Maintenance Supervisor Rick Magnuson explains, "This grapple allows us to knife through ice and snow so we can handle the ties in the winter. It lets us use the material handlers instead of forklifts to move the stacks of ties."

"We also added a camera on the boom of the machine. Even with the elevating cabs on the 818s, it can still be tough to see to the bottom of a railcar when loading or unloading it. Randy helped us install monitors in the cabs and suggested using a magnet on the camera until we determined the best location to place it. When we made our final decision, we mounted the cameras and added some protection around them. Those additions have made a huge difference."

#### **"Good bones" for reliability**

Custom features fit the machine to the job, but it takes good bones to put in the hours that the Bangor yard requires. The facility receives about 25 truckloads of ties per day, with additional loads arriving by rail every other day. The crossties from

*Roland Machinery helped Stella-Jones customize three SENNEBOGEN 818s for picking and loading rail ties with a customized grapple and a boom-mounted camera to give operators a better view into the rail cars they are loading.*



this facility, along with switch ties ranging up to 25 ft. (7.6 m) in length, are shipped out to railroads throughout North America.

"When we show up in the morning, we know the SENNEBOGENs are going to operate all day," Russell said confidently. "We run two, nine-hour shifts, and we are moving 3,000 to 4,000 lb. (1,361 to 1,814 kg) loads of crossties approximately 5,000 times per shift, so reliability is very important to us. The reputation of both SENNEBOGEN and Roland Machinery made it an easy choice to go with the 818s."

Rick Magnuson concurs. "We were attracted to SENNEBOGEN because it specializes in building material handlers," he says. "We run them hard every day, and they continue to perform. We also love their Cummins engines."

"All of the Stella-Jones locations want to be the best they can be, and we all share information and operating practices," Russell concludes. "After the success we've had with them, I think there will be some other locations that will look to add SENNEBOGENs as well." ■



## **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 ULS stick will likewise provide added lift capacity. The ULS is available for the 818, 821, 825, 830 and 835 machines. ■



# White River Mill Yard Matches New Production Capability With SENNEBOGEN 830 M-T

The re-opening of the sawmill in White River, located in Northern Ontario, was one of the lumber industries rare “good news” stories of 2013. Shuttered six years earlier, the town’s population had dwindled to nearly half its size from the 1990s. Then numbering about 600 residents, the Township of White River and the nearby Pic Mobert First Nation joined forces to create White River Forest Products LP (WRFP). Led by CEO Frank Dottori, the renowned founder of Canadian forestry giant Tembec, the new venture invested heavily in restoring the site and creating a new model of efficiency in Ontario’s north.

The centerpiece of the new mill is the infed deck to a new saw line. Equipped with 14 scanners to achieve dramatic improvements in the mill’s yield from every tree. The new saw line can out-produce all three of White River’s previous lines put together.

The next challenge was to match that efficiency in the yard’s loading capability. For that task, WRFP has turned to two SENNEBOGEN 830 M-T purpose-built material handlers.

Robert Acs, the Yard Manager at WRFP, recalls the effort to move wood as fast as the saw can process it. “We acquired some older equipment with the assets we purchased from Domtar. We tried upgrading to another material handler but it only lasted six months. We could see it wasn’t working out.”



## Getting up to speed

In the meantime, the yard contracted out a loading by-the-hour service with Dan Bolduc of DKR Trucking. Bolduc was operating an 830 M-T, specially designed by SENNEBOGEN to pull a

# SENNEBOGEN 730 and 735 Machines Set The Pace For Pick & Carry



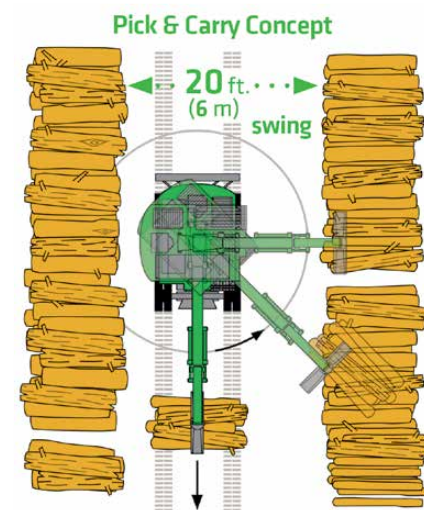
Purpose-built to move wood with minimal maneuvering effort along direct travel paths. With all-wheel steering and just 12 ft. (3.6 m) wide, the 735 M-HD easily negotiates its way between tight rows of stacked logs. With a 32 ft. (9.7 m) reach, it is able to pick loads quickly and safely.

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



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

\* Percentages will vary depending upon conditions.

big trailer. The 830 took on the yard's full range of loading duties: offloading trucks, stockpiling the wood, forwarding logs to the mill on a trailer and loading the infeed from the trailer.

With a front row view of how Bolduc's machine did it all, Dottori and the WRF board soon approved the purchase of another unit from Strongco, the SENNEBOGEN distributor located in Sudbury, Ontario. Strongco's Danny Virgoe explained how the 830 M-T adds to the success of the mill. "Some equipment just isn't designed for extreme conditions like this. And this part of the world is no place to be looking for repair parts in a hurry!"

"Uptime is critical!" Acs agrees. "It's a full day for the bus to deliver in-stock parts from the Strongco branch in Thunder Bay. A week is pretty good if we need anything from the factory. But these are low maintenance machines. They work 20 hours a day, 5 days a week. We've put 13,000 hours on our machine in two and a half years; Dan has 17,000

hours on his 830 – but we haven't had a single day out of service!"

### On the move

Surviving the cold of White River winters is just one of the challenges to the SENNEBOGEN machines. Wicked freeze and thaw cycles in the spring leave the yard in a slippery, boggy condition: tough sledding when you're pulling a load. Forwarding from the stockpiles to the deck can be a trip of up to 700 yds. The undercarriage's higher clearance is uniquely designed for the job, with dual transmissions to drive each axle and with a frame specially reinforced against pulling stresses.

SENNEBOGEN's elevating Maxcab provides operators with the visibility to keep the site safe while unloading and stacking. The cab's sliding door and catwalk allows safe entry and exit, especially when the yard is filled with snow and ice.

Acs notes that the high lift of the material handler further reduces any potential delays in forwarding cycles.

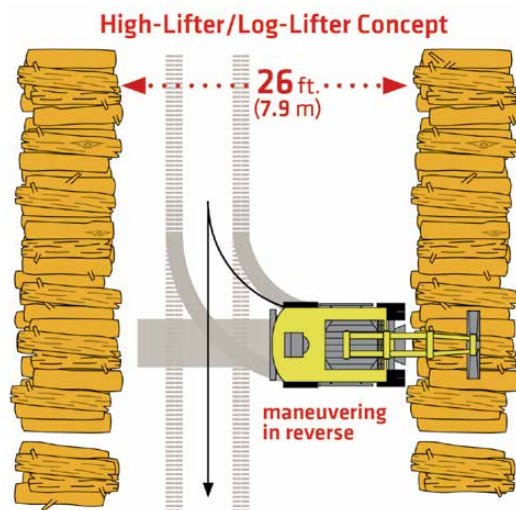
"We can stack more wood closer to the mill, so that saves travel time."

With the upgraded saw line, White River can produce up to 40,000 board feet per hour. Processing black spruce and jack pine logs from 4" to 20" in diameter, its chip volume has been reduced by half. The mill now yields more lumber from each tree. At full capacity, it targets 150 million board feet of FSC-certified products, with about 70% in 16' lengths of 2 X 4 and 2 X 6.

The return of the mill has led to a rapid resurgence of the town. With 160 employees at the mill, White River is seeing the return of experienced workers like Robert Acs. The town's population has risen again to more than 1,000, and its most pressing problem these days is housing its new residents.

With the 830 M-Ts in the yard, Acs is keeping up with the saw line. The mill is keeping up with today's most advanced technology. And now, happily, the town is working to keep up with the mill! ■

## Space Between Stacking Rows



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.



# SENNEBOGEN Removes Wood-Handling Bottleneck For Harry Freeman And Son

“The decision for our second SENNEBOGEN was a lot simpler than the first.”

Steven Freeman recalls the trials and deliberations that led his family to purchase a SENNEBOGEN 830 M-T log-handler four years ago. “Our yard is tough: it’s rock, and wood debris, and some mud, and the stud yard is up the hill, 300 to 400 yards from the mill. It’s a cruel environment for a machine.”

progressively updating its equipment and processes. SENNEBOGEN designed the 830 M-T specifically for this kind of work, combining excellent reach and lifting efficiency with rugged all-wheel drive trailer-pulling capacity.

## Dealing with downtime

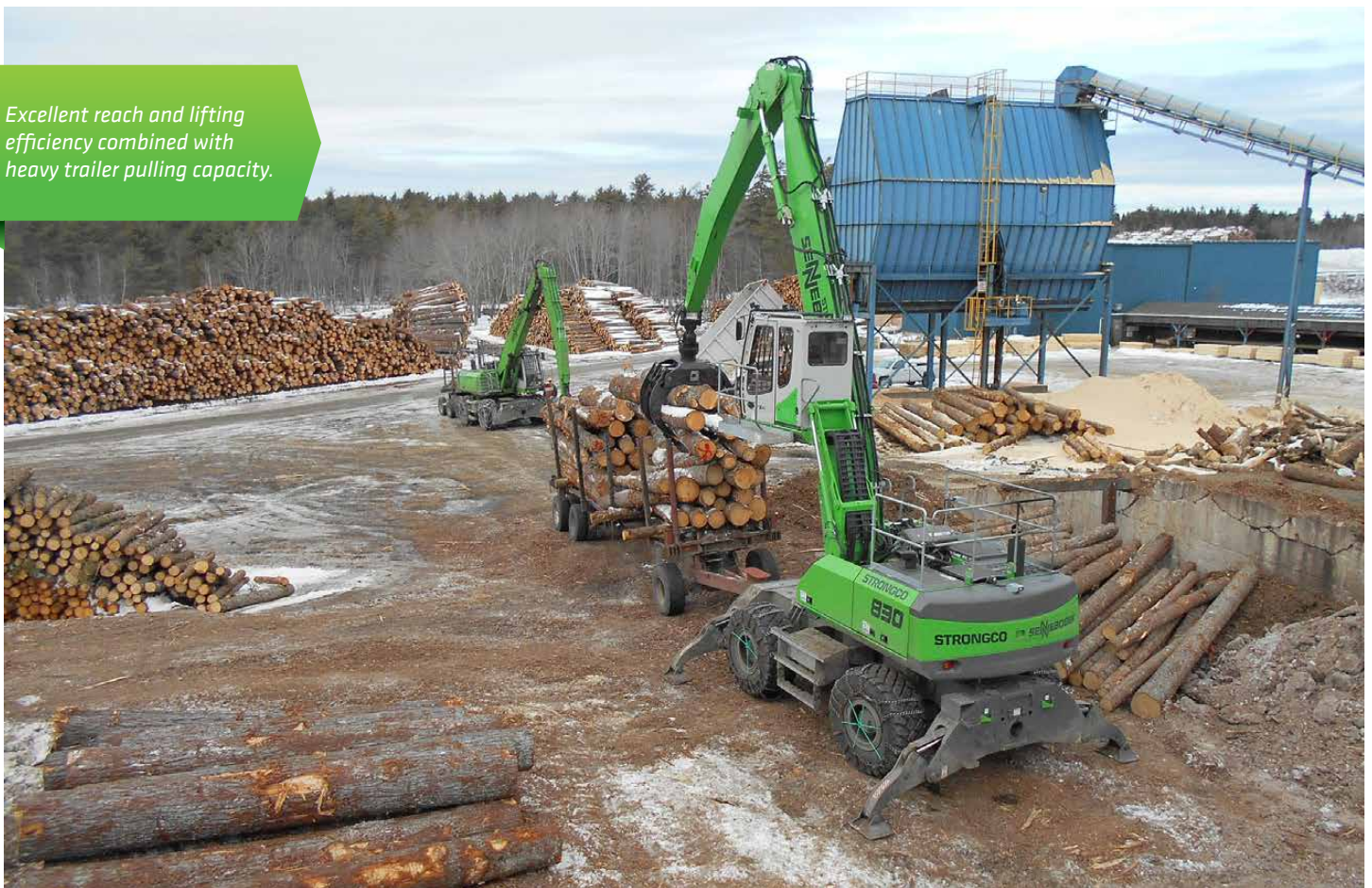
Their first 830 was put to work forwarding wood for the stud mill processing 8’-10’ (2.5-3 m) logs. Meanwhile, the random wood mill

“We did try another make of log-handler before we bought our first SENNEBOGEN but it wasn’t built as heavy and couldn’t withstand the application.”

## Keeping up with mill throughput

The Freeman mill produces approximately 100 million board feet (30,480,000 m) of lumber per year. As Steven notes, with a staff of more than 150 over two shifts, having a

*Excellent reach and lifting efficiency combined with heavy trailer pulling capacity.*



Steven represents the sixth generation of his family to manage Harry Freeman and Son Limited, located about 100 miles south of Halifax, NS, in the midst of Nova Scotia’s White Pine forests where they process spruce and Eastern white pine. Operating since 1832, the Freeman mill has always taken pride in

relied on a wheel loader fitted with a log grapple to bring in mostly 16’ (4.9 m) and 12’ (3.6 m) logs. “But whenever the 830 had to come out for scheduled maintenance, it was very disruptive to our production,” says Freeman. “Today, production levels are maintained using our new 830 M-T.”

whole crew standing around, waiting for wood, is not a good thing. “It used to be that before we put the 830 in maintenance, we’d have to lower the tiers for the wheel loader to handle the studs and the log stacks. Our back-up plan wasn’t pretty, either – we’d have to hire self-loading trucks to forward the



With 2 machines, starving the mill is never a bottleneck.

studs from up the hill. They couldn't keep up with it; it left the mill starved for wood."

**Due diligence**

The family conducted its due diligence before ordering another 830 M-T to take over duties in the random yard. Consideration was given to buying a

same equipment to service and same parts to stock. Our support from Strongco, our SENNEBOGEN dealer, has been excellent. Standardizing on the Cummins engines are helpful. There's nothing exotic about them for us to maintain. Plus, the 830 gives us the extra flexibility of two machines

*Today, production levels are maintained using our new 830 M-T*

pick & carry machine instead but the decision moved quickly to adding a second SENNEBOGEN trailer pulling log loader equipped with a Rotobec F1250 HD rotator grapple capable of handling over 13.45 ft<sup>2</sup> (1.25 m<sup>2</sup>) of 16' (4.9 m) logs.

"First, we knew what we're getting," Freeman explains. "Getting the same machine again means we have the

that can feed the mill, as well as forward the wood."

"With the two 830s working together, we have more than enough capacity now. Our ability to move wood is not a bottleneck anymore and together these two machines have replaced the need for three pieces of mobile equipment required to meet our ongoing production needs." ■



730 Pick & Carry



825 M Stacking



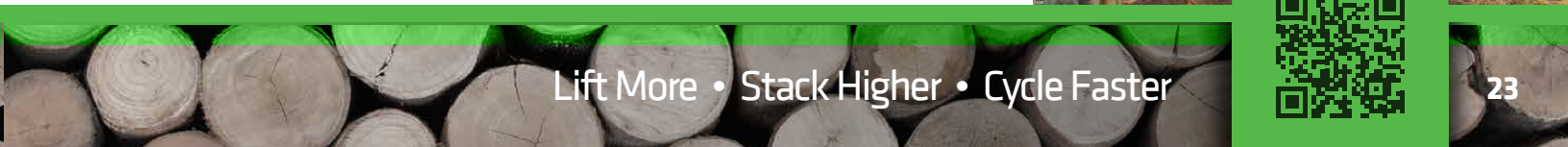
830 with Butt 'n Top Grapple



830 M-T with Live Heel



825 M with Dead Heel



# SENNEBOGEN 870 R-HD Material Handler Gives Economic Growth A Lift At Paducah Riverport

Located at the confluence of the Tennessee-Tombigbee Waterway, the Ohio River and the Cumberland River and just upstream from the Mississippi, the City of Paducah enjoys a long history as an important hub in America's inland waterways network. As Executive Director of the Paducah-McCracken County Riverport Authority, Bill Miller is working to preserve that legacy and make the Riverport a key driver for economic growth in the region.

On taking over the position in June of 2015, Miller's first priority was to upgrade the port's infrastructure. "Our 20 year old lattice boom crane was past its useful service life," he reports. "So the Board for the Riverport Authority authorized a bid spec to replace it with the best available equipment." Today, a new

E-Series SENNEBOGEN 870 R-HD purpose-built material handler serves the stream of barge traffic that flows through port's bulk berthing area.

In service since mid-September 2017, the 870 R-HD is the result of a comprehensive bid process that opened the door for presentations from manufacturers of both rope cranes and hydraulic material handlers, including electric-drive and diesel-powered machines. "Our spec was operational. Our goals were speed, parts, service and an eco-friendly performance."

## "Eco-friendly" to waterways

The 870 model proposed by SENNEBOGEN was unlike any other solution reviewed by Miller and his team. Among the newest of SENNEBOGEN designs, the distinctive look of the 870 is notable for the massive "Green Hybrid" hydraulic cylinder mounted between its two main boom lift cylinders. In a unique application using conventional and simple hydraulic engineering, the Green Hybrid system captures boom energy on every down movement of the boom and stores it safely in secure and protected containers at the rear of the machine. The energy is then released to assist the next lift of the boom. According to SENNEBOGEN, this energy recovery process reduces the 870's fuel consumption by as much as 30%.





The 870's energy efficiency helped to meet the Riverport's environmental objectives. Its "green" performance is further enhanced by its Tier 4F compliant 355 HP (261 kW) Cummins diesel engine which adds a level of environmental protections for the vital waterways connected to the ports.

#### Faster loading cycles

The Paducah Riverport operations sit on 2,300 feet of river frontage, with 14,000 tons of on-site warehouse capacity, large outside storage yards and complete fleet and switching services. Fitted with a 5-yard clamshell bucket and a bent boom with a total reach of 66 feet, the operators can easily reach down 50 feet below the cell to clear out barges filled with sand, aggregates and fertilizers. "We're right on the river channel and the water levels vary a lot," Miller explains. "We wanted to make sure the boom could reach no matter the variance between low and high water."



Butch Woods, the Port Manager in Paducah, agrees. "We knew the cycle times could out-pace our conveyor system from the outset, and it's been producing very well. It reduces our operating costs by completing loads in

a normal 8-hour shift; we aren't paying for overtime hours to empty the barges."

With the cab being equipped with a floor window and able to extend out over the hold, it's easier to see into the load.

#### Training support

Brandeis Machinery, the SENNEBOGEN distributor in Kentucky introduced the operators and maintenance to the 870's service requirements. "Brandeis is very responsive," Miller says.

#### An economic driver

The progressive initiatives at the Paducah-McCracken County Riverport are getting noticed. In September 2016, Paducah-McCracken County Riverport Authority received the "America's Marine Highway Leadership Award" from the U.S. Department of Transportation's Maritime Administration. As Bill Miller says, "Improvements like the 870 R-HD help us to further enhance the region's abilities to service new industries and expand our current business partners." ■

## Energy Savings Grow With Green Hybrid Product Line

SENNEBOGEN officially introduced the innovative *Green Hybrid* energy recovery system at Bauma 2013. Initially offered on just the 875 E Series model, the *Green Hybrid* system quickly proved itself a winner. Early adopters all over the world achieved immediate energy savings of up to 30% when compared to conventional diesel or electric machines.

### How it works

Each time the massive boom is lowered, the hydraulic cylinder captures the energy by compressing nitrogen gas stored in accumulators at the rear of the machine's upper carriage. On the next lift cycle, this pressure is applied to assist in raising the boom. This "free" energy reduces the amount of diesel or electric power required to complete every lift by approximately 30%.

*Green Hybrid* benefits pay off best in applications that call for frequent raising and lowering of the boom. For that

reason, this new technology is becoming especially popular in the world's seaports, river terminals and dredging operations.

#### Safety under pressure

The *Green Hybrid* accumulators require the same safety precautions as all pressurized industrial vessels. However, with the accumulators located in the rear area of the machine, surrounded by rear ballast and other heavy machine parts, the SENNEBOGEN *Green Hybrid* solution is engineered to comply with

the highest safety standards. Pressures within the gas-based system, in fact, are relatively low. An added benefit of this low-pressure design is that the force it imparts to the hydraulic cylinder is virtually constant. Applying its energy in a smooth, uniform fashion minimizes heat and wear on the hydraulic components. ■



#### EXPERIENCE THE SYSTEM

SCAN TO WATCH AN ONLINE VIDEO DEMONSTRATION



# SENNEBOGEN Material Handler Duo Keeps Production Neat And Tidy At Busy Ohio River Terminal

Already long established as one of the Ohio River's premier port terminals, new ownership brought new equipment opportunities for the busy River Road Terminal in the transportation hub of Louisville.

Within weeks of Watco Terminal and Port Services acquiring the third-generation family-owned business in the spring of 2016, modified excavators used for unloading barges "as a stopgap measure" were replaced by two purpose-built SENNEBOGEN mobile material handlers. "Excavators aren't really what we need to use," explains Paul Lawson, Terminal Manager, a 34-year veteran of the facility who heads up the 11-member Louisville team that remained pretty much intact during the ownership transition. "The motion of the excavator versus the long boom and the clamshell of the SENNEBOGEN is just not conducive to the type of work we do here."

The type of work Lawson and his crew do in Louisville is the unloading of bulk material such as fertilizer, salt, coke and assorted coal types like anthracite and lignite. The materials are loaded either directly into trucks or, in the case of fertilizer, into hoppers for storage and later distribution.

The River Road Terminal is in a prime location within a half-mile of Interstate 71 that, with its nearby intersection with both Interstates 65 and 64, can facilitate quick and simple material distribution in all directions of Middle America.



In an "average" month, the single-shift Louisville operation will unload a brisk 40,000 tons of material at the terminal's expansive 1,250 ft. (381 m) of Ohio River frontage, which can accommodate three barges at once.

## SENNEBOGEN Selected As Total Package

ABP Immingham, the largest port in the UK by volume, shipping 61,000,000 tons recently, took delivery of a new SENNEBOGEN 875 M Port Handler.

"We were impressed by the 'total package' of the SENNEBOGEN machine. We were especially impressed from a service and operator's perspective. It was the overall simplicity of the design that was truly amazing," commented Steve Williams, General Manager of ABP Immingham. "We were also very interested in the Green Hybrid Energy Recovery System. Its unique energy capturing process will save us fuel and money over time."

The ABP Immingham machine was ordered with a boom and stick combination delivering a reach of 88 ft. (27 m) mounted on a 4 axle wide-gauge



mobile undercarriage, large outrigger pads and a spacious port cab on a 6.5 ft. (2 m) pylon. This unique cab is designed with a second seat for a trainer. It has been painted with special sea climate paint and the hydraulic cylinders have received additional environmental protection. It was also ordered with a quick release coupler, built-in rotator, timber spreader, 20 ton hook and a clamshell grab.

Also part of the total package was service technician training. "We arranged for our service technicians to attend service training courses at the SENNEBOGEN training academy in Straubing about a month before delivery with our in-house trainers. Once it was commissioned, our trainers provided our operators with instructions on how to maximize their machine's productivity." ■

## SENNEBOGEN material handlers suit the site

Having worked with other Watco facilities in the region, Brandeis Machinery, the local SENNEBOGEN dealer, surveyed the River Road Terminal yard to properly outfit the 35-acre facility on Louisville's busy east side.

In order to maximize production at the Louisville site's riverfront, to which machines can strategically sit within 10 ft. (3 m), the resulting equipment solution was the duo of a rebuilt SENNEBOGEN 850 M and a new SENNEBOGEN 860 M. The mobile material handlers are equipped with 3 and 5 yd<sup>3</sup> clamshell buckets respectively.

The hydraulic elevated cabs on the wheeled machines provide the operators with a clear view into the barge hold, supported by cameras outfitted to each unit's boom. With skid-steer loaders cleaning up inside the barges while the SENNEBOGEN material handlers reach in from the shore, "it's all about safety," explains Lawson.

The ability to position the machine "close to the pool" further helps keep things



tidy at the facility, says Lawson. The site is serviced by a pair of wheel loaders, in addition to the two skid-steer loaders and two SENNEBOGEN material handlers.

### SENNEBOGEN fits expanding future needs

The SENNEBOGEN 860 M not only offers the additional heft to handle the fertilizer needs of today, but has additional production opportunities that Lawson is planning to pursue once the River Road Terminal site completes an ongoing physical reorganization. For example, with a quick attachment change, the machine will come in handy for handling wire rod.

The SENNEBOGEN 850 M, with about 11,000 hours of service, was rebuilt by

Brandeis Machinery. Beyond regular preventive maintenance which Watco conducts itself, the terminal will rely on Brandeis for all service of both SENNEBOGEN machines, says Lawson.

With an ever-growing network of facilities, the Watco Terminal and Port Services division of Watco Companies LLC is a leader in bulk, break-bulk and liquids rail/truck transloading, as well as railroad switching, warehousing, liquid tank storage, and barge and vessel loading/unloading. The company's ports and terminals handle more than 350 different products including dry bulk, waste materials, chemicals and crude oil, always handled in the most safe, cost-effective and environmentally-friendly manner. ■

## S. Norton Upgrades River Port Capacity With 870 M Green Hybrid Material Handlers

Two new 206,130 lb. (93,500 kg), rubber-tired SENNEBOGEN 870 M material handlers are the centerpiece of a \$14 million upgrade program at S. Norton & Co's ship-loading facility in Barking, UK.



Located on the Thames River, the Barking river port serves vessels linking Greater London to the English Channel and the North Sea. The 870s are mounted on 6 ft. (1.8 m) pylons and fitted with a boom and stick giving it a 79 ft. (24 m) reach, larger outrigger pads for increased stability, and 3-yard 5-tine grabs. The machines also feature the Green Hybrid energy system, utilizing a large central boom cylinder to hydraulically capture "free" energy when the boom is lowered, then use the stored energy to assist each lift cycle.

Michael Duke, Site Manager for S. Norton's Barking facility, explained, "There have been SENNEBOGEN material handlers (835 Specials) on this site for over 12 years, and they have served us

very well. The machines were getting up to 20,000 hours, so we knew we had to bring in replacement machines. As part of our overall development program, we needed to go for larger machines to increase throughput, by loading vessels much quicker."

Matt Norton, Technical Director, continued, "We visited SENNEBOGEN during the build process to inspect and test the machines before they were stripped down for shipping to the UK. The trucks arrived on the Monday, the machines were put together and handed over on Thursday evening the same week and it all ran like clockwork." ■



# For The New SENNEBOGEN 8130 EQ Material Handler, Scrap Yard Efficiency Is A True Balancing Act

Scholz Recycling GmbH & Co. KG is not your grandfather's scrap yard. Having the most modern and efficient equipment is essential in an industry that now produces the world's leading recycled material. Every second ton of steel produced in the world today is made from recycled metal.

The addition of the new pedestal-mounted SENNEBOGEN 8130 EQ material handler is a leading example of the innovative efficiencies that keep the Scholz Recycling scrap yard one of the largest and most productive in all of Europe. Approximately 40,000 metric tons are handled per month at the modern facility.

## The entire package convinces Scholz

The SENNEBOGEN 8130 EQ leverages a sophisticated balance principle which, when combined with the machine's electric drive, can save up to 75% in operating costs compared to traditional material handlers of similar size.

Incorporating the equilibrium principle, the 8130 EQ maintains perfect balance and puts all its energy into handling the load. To achieve moving 80-100 metric tons handled per hour the power is provided by a highly efficient, environmentally-friendly 175 hp (130 kW) electric motor.

Although already familiar with the equilibrium principle, Scholz Recycling officials admit they required additional reassurance before purchasing such a large-scale machine as the SENNEBOGEN 8130 EQ, which features an 89 ft. (27 m) boom equipped with an orange peel grapple.



"SENNEBOGEN finally convinced us with an overall concept. The decision was based on a detailed competitor analysis, visits to customers in Germany and Turkey, and finally a visit to the SENNEBOGEN production facility in Straubing, Germany," says Mike Sommer, Site Manager. "The sturdy design, a quick operating speed, high range, as well as good energy balance, were all important factors."

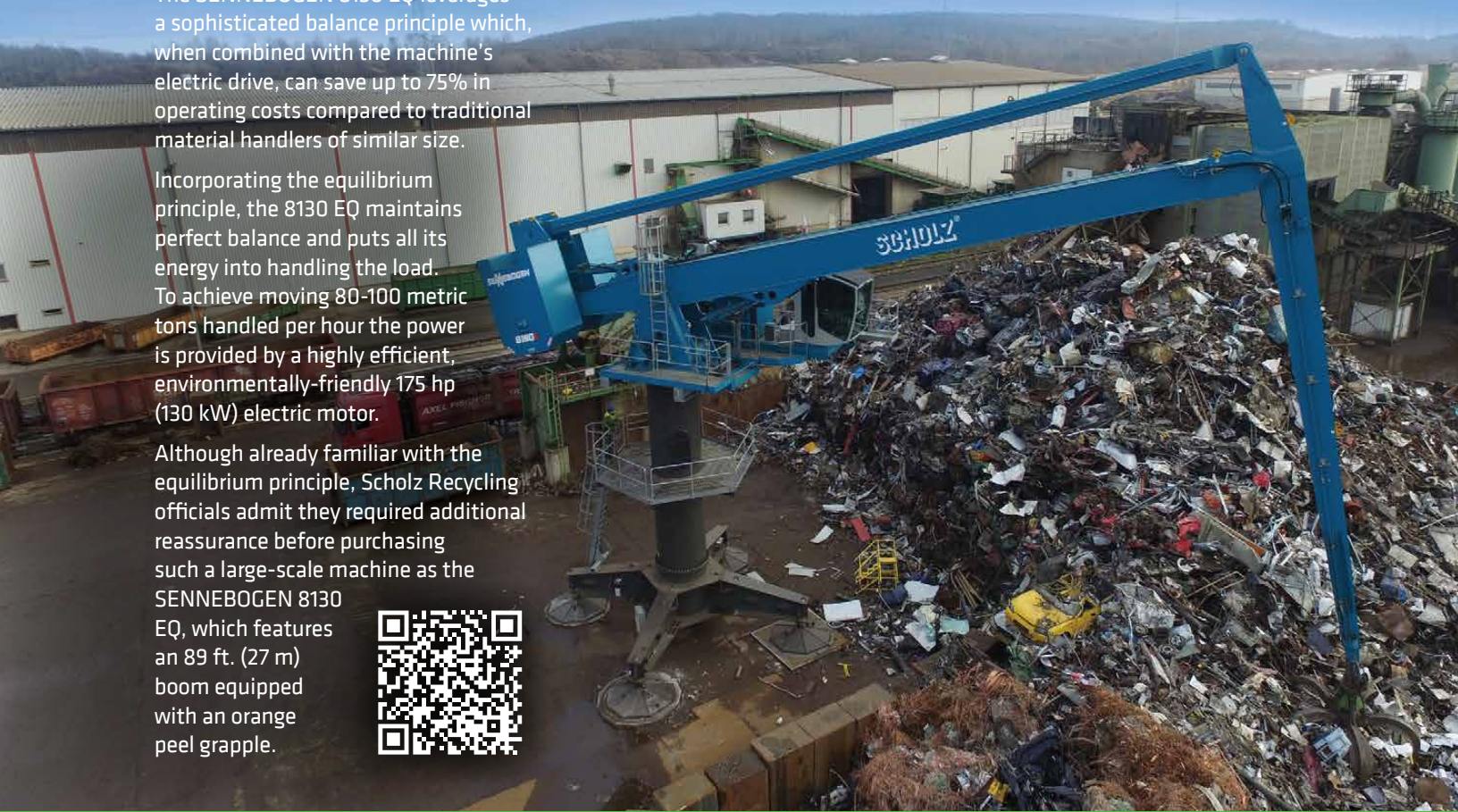
## Operators give their thumbs-up

Working in a three-shift operation, the new SENNEBOGEN 8130 EQ loads 20,000 metric tons of scrap per month into a large stationary shear that serves as the centerpiece of the Scholz Recycling process. In spite of the high

work demands, the comfort of the machine is second to none, reports its operators.

"Thanks to the electric motor, this machine has low vibrations and does not require a fuel stop. Additionally, the service intervals are longer than those of diesel machines," says operator Michael Chiemelski. "In short, the machine is simply more reliable to run and I am able to fully focus on my work."

For the SENNEBOGEN 8130 EQ operators, an optimal view of the work area from the cab is enhanced by the onboard cameras and comprehensive LED lighting system package, notes Sommer. ■



# Dubai Sea Wall Project Takes “Balanced” Approach To Land Reclamation With SENNEBOGEN

Taking the lead in construction of a massive sea wall to create new building space for this burgeoning economy, Bilal General Transport LLC (BGT) has deployed SENNEBOGEN’s powerful EQ technology to precisely position stone blocks weighing up to 7 tons.

handler is ideally configured to allow BGT operators to place rip-rap stones for the new sea wall with pinpoint precision. Fitted with an orange peel grapple, the 880 EQ is able to position the huge rocks, accurate to within less than one inch. Using a GPS system to

## **SENNEBOGEN 880 EQ: Optimized for the demands of constant use**

Delivered to BGT in 2016, the 880 EQ is powered by a 635 HP (470 kW) diesel engine and a crawler track undercarriage. The upper carriage sits on a 10 ft. (3 m) pylon and is equipped with the large



*Reaching out to 115 ft. (35 m), the SENNEBOGEN 880 EQ precisely places rocks weighing up to 7 tons to construct a new seawall on the coast of Dubai.*

## “ SENNEBOGEN Rocks! ”

Dubai’s legendary economic growth on the coast of the United Arab Emirates (UAE) has put a premium on every square foot of buildable land – and a demand to capture more of it. BGT has been a leading contractor in the region for more than 20 years. The La Mer project, BGT’s latest undertaking, aims to create nearly 250 acres (1 million square meters) of new space for urban expansion. To achieve this, BGT will have to move around 11 million yards (9 million m<sup>3</sup>) of sand and up to 6.5 million tons of rock.

### **SENNEBOGEN Rocks!**

With a reach of up to 115 ft. (35 m), the SENNEBOGEN 880 EQ material

achieve precise placement even under water, BGT with its 880 EQ is re-molding Dubai’s coastal profile like part of a gigantic puzzle.

It’s fast, too. The operator can place materials with unerring accuracy in as little as 40 seconds. The limited reach of machines used previously required coordination of water-based as well land-based equipment to fit the rocks into place. The SENNEBOGEN 880 EQ now accomplishes the same work on land. As a result, work is no longer constrained by the tides, or the complexity of the situation.

SENNEBOGEN Portcab. Thanks to the elevated and forward placement of the cab, it offers the operator an ideal overview of the work zone and target area through 360° and downward through its floor window.

The counterbalance design of SENNEBOGEN’s equilibrium cranes lets the 880 EQ take on the heaviest projects with exceptional efficiency, while generating significant savings in operating costs. SENNEBOGEN’s EQ principle responds to shifting loads dynamically with interconnected counterweights, effectively reducing its consumption of diesel fuel by up to 50%. ■



# The Newest and Largest SENNEBOGEN Material Handler, Being Installed In Busy Bulgarian Port

In a true logistics feat, the largest SENNEBOGEN balance material handler is now assembled and handling bulk goods every day at the Bulgaria's largest Black Sea port.

The 270 metric ton SENNEBOGEN 8400 EQ material handler leverages an innovative balance principle which, when combined with the machine's electric drive, can save up to 75% in operating costs compared to traditional equipment of similar size. It has a reach of more than 131 ft. (40 m) and is efficiently operated from a cab elevated to a height of about 66 ft. (20 m).

Equipped with a rail gantry undercarriage, the 8400 EQ easily moves up and down the Port of Burgas' docking platform. Local trucks can simply drive under the material handler for fast loading. If only moving the massive machine to the Port of Burgas was as easy.

## On the move

The first 8400 EQ was initially assembled at the SENNEBOGEN plant in Straubing, Germany. In a tandem lifting operation, two cranes were used to place and then secure the uppercarriage and boom elements. Intensive factory testing followed, before the machine was dismantled into 36 individual parts for transport to Bulgaria.

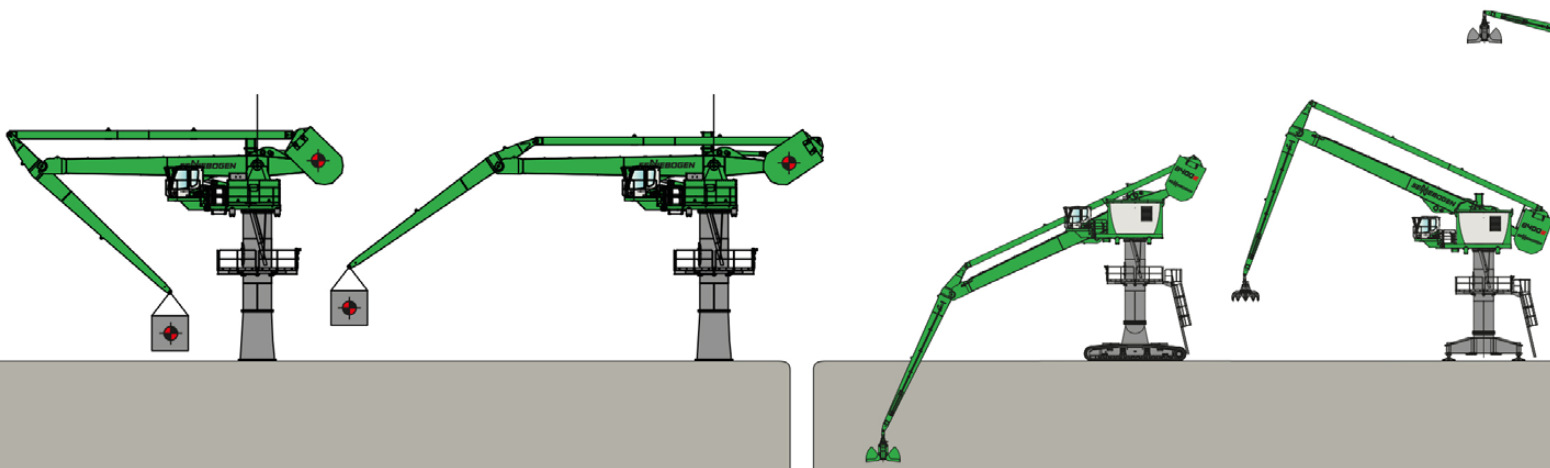
Using Europe's second longest river, the Danube, the 36 parts of the first 8400 EQ would fit into the massive 1,200 metric ton river boat that travels regularly from Straubing toward Ruse, Bulgaria.

Now on the job at the Port of Burgas, the SENNEBOGEN 8400 EQ is receiving positive reviews for its production and efficiency, including the fuel and energy savings resulting from the electric drive and balance principle.

Incorporating the principle that the longer the lever is on one side, the greater the opposite counterweight must be, the 8400 EQ is able to retain perfect balance and put all energy into handling the load. Despite its massive size and unique design, the gantry-based balance material handler has proven easy for operators to maneuver thanks to the dual joysticks in the elevated cab. ■



## THE EQ SYSTEM - ALWAYS ON BALANCE ON EVERY PLATFORM





With its reach of 88 ft. (27 m), Zlompol's new SENNEBOGEN 8100 EQ comfortably covers an area of almost 27,000 sq. ft. (2500 m<sup>2</sup>).

## Balancing future energy costs and efficiency in Poland

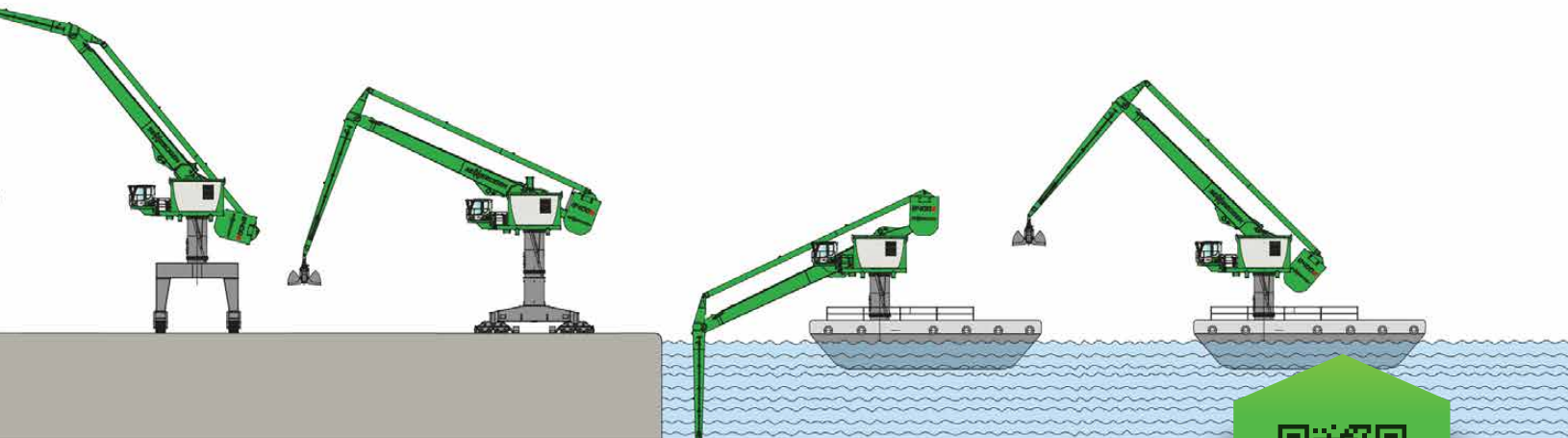
Zlompol Sp.J., based in Tarczyn in Poland is celebrating 25 years in the scrap recycling business with a new SENNEBOGEN 8100 EQ material handler. Managing Director Robert Cimoszynsk says the firm chose a machine that improves productivity while reducing energy costs and allows them to build their business at the same time.

"Our new machine can be seen from quite some distance away. People keep coming

to admire it. Many people are even making special trips to bring scrap so they can see the new material handler."

The 8100's EQ counterbalance design which is a simple linkage continuously adjusts the machine's large counterweight to reduce the amount of energy required to lift each load. This allows a relatively small 110 kW electric motor to fully power the machine. Without the EQ advantage, a comparable

hydraulic material handler would need at least a 200 kW motor to achieve equal power and operating area. Combining the balance principle and the electric drive saves the company up to 75% of the machine's operating costs. Working at an elevation of almost 35 ft. (10.7 m), the operator not only has an unobstructed view of the shredder feed area, but can also keep an eye on the entire yard and all the processes going on around him. ■



Purpose-Built From The Ground Up



# 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 delivering better service to their customers. Service Managers across the country are unanimous in their

praise of the SENNEBOGEN Training Programs and all say it is worth the time and planning to travel to the Stanley Training Center. They send technicians and members of their Parts Department for the free advanced technical training and specialized parts courses offered by SENNEBOGEN.

*"A lot of OEMs don't want to show anybody else how to service their machines. It's a big advantage to us to be able to work on our own machines."*

*Mark Bond, President  
Metro Group*

"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."

With "school in session" every week, the focused hands-on instruction is valued by all those in attendance. "I like the accessibility we provide to a clean machine...", says Contantino Lannes. "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. ■



# The Fast Track To Machine Mastery Is Free!

The free technical programs at SENNEBOGEN's Training Center lead technicians to in-depth understanding of every aspect of their machines' maintenance and troubleshooting – in two easy steps.

**Service Level 1** and **Service Level 2** are both offered with a specific focus on your choice of D or E Series machines. The courses are offered without charge, both to dealer staff and to customers' technicians. Instructions are available in English, French and Spanish.

The Training Center's large indoor bays allow attendees to learn and practice course procedures in a highly interactive hands-on experience. The Center is "firewalled" from our adjacent warehouse and sales offices to create a distraction-free learning-focused classroom and hands-on environment for both staff and trainees. Our trainers came from the field with practical experience having spent many years as heavy equipment mechanics before they became professional factory-trained instructors.

**Level 1 sessions** introduce service procedures for all aspects of SENNEBOGEN material handlers and are open to anyone with a working knowledge of diesel-powered heavy equipment.

**Level 2 sessions** focus on advanced troubleshooting concepts. Enrolment in Level 2 is restricted to technicians who have already completed and practiced Level 1 training.

## SENNEBOGEN COURSES

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

Visit us online at  
[sennebogen-na.com/training](http://sennebogen-na.com/training)  
or scan the QR code below

### Service Level 1

#### 5 Day Course

#### Course Content:

- Machine Safety, Operation & Functions
- Preventive Maintenance
- Read & Understand Hydraulic Schematics
- Read & Understand Electric Schematics
- Basic Trouble Shooting:  
Magnet System, Hydraulics, Electrics

**Course fees:** No charge to SENNEBOGEN dealers, staff and customers. Training manuals are provided to attendees in both paper and CD format at no cost.

### Service Level 2

#### 5 Day Course

#### Course Content:

- Remote Trouble Shooting
- Component Training & Repair
- Failure Analysis
- In Depth Trouble Shooting  
Magnet System, Hydraulics, Electrics

Level 2 classes are smaller & more intensive & build on Level 1.

**Course fees:** No charge to SENNEBOGEN dealers, staff and customers. Training manuals are provided to attendees in both paper and CD format at no cost.



## Training For The Next Generation

SENNEBOGEN believes strongly in the value of training, not only as a service to customers but for "growing our own" skilled trades people and knowledgeable workers. We are a close-knit, family-run organization with a uniquely specialized focus on machine technologies. To prepare the best people for this kind of work, our factories invest in apprenticeships and internships every year, offering young people the opportunity to build a secure and satisfying career.



# Setting Industry Standards

At SENNEBOGEN Capital, we provide cost effective strategies for our dealers and their customers to meet their productivity goals and objectives to remain viable.

We built our reputation on every machine working in the markets we serve.

We have been well received by the marketplace and we work every day to make it even better. That's why we established SENNEBOGEN Capital. We wanted to be the solution provider of purpose-built equipment for our customers. So having an alternative source of funding and innovative leasing options are the reasons we created it.

# Why SENNEBOGEN Capital?

For us, SENNEBOGEN is just not a machine but is a family name and as such, we act accordingly. We trade on our name and therefore, work hard to properly represent it in the marketplace. Being in the industry, we understand that having alternative sources of funding for your operation is key to your ongoing success.

It means different things to different people, including: tax advantages; simplifying equipment replacement; built-in unmatched flexibility and the convenience of One-Stop financing.

## We Have Options

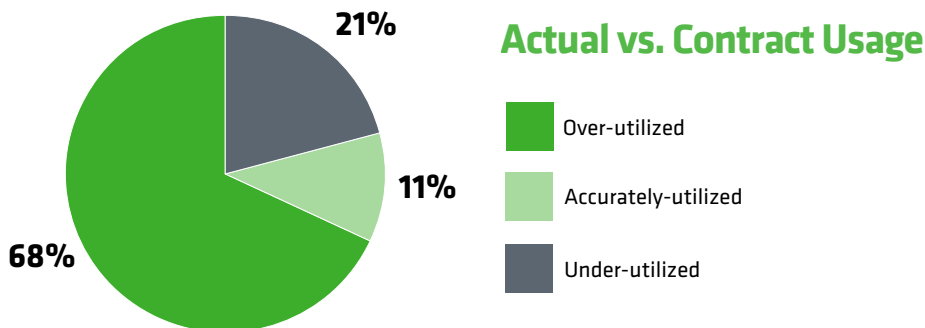
Today, customers purchasing SENNEBOGEN material handlers can now arrange flexible financing through SENNEBOGEN Capital. Through our industry-leading authorized distribution network, we offer:

- **Full Payout Loans** that have fixed payments over the term of the lease while building ownership equity in the equipment.
- **A Fixed Price Purchase Option** that allows you to purchase the equipment for a specified amount at the end of the term or just turn it back.
- **A Tax or True Lease Option** that will give you the opportunity to purchase the equipment for a fair market value at the end of the lease, extend the lease or turn it back.

## Worried about how your lease costs are affected by over- and under-utilization of your material handler?

We understand that it's hard for Fleet Managers to estimate their machine utilization rates over the term of the lease.

A recent utilization survey on thousands of assets sold at the end of their leases revealed that too many of the units were either under-utilized or over-utilized across different industries. Only 11% got it right while the other 89% either over- or under-estimated their actual usage.



## So We Created Lease By The Hour<sup>®</sup>

Flexible by-the-hour terms from SENNEBOGEN Capital lets you avoid the extra cost of under-utilization or over-utilization of your material handler.

## How Does It Work?

We help you structure the lease using your historical usage. Then we base the Lease By The Hour<sup>®</sup> contract on a minimum monthly usage over the long term. When usage increases over the minimum, we shorten the term. You pay for high usage when production and revenues are high and less when production and revenues normalize.

## Learn More About Lease By The Hour<sup>®</sup>

For more information on this latest industry-leading innovation from your SENNEBOGEN dealer, scan this QR code and learn how this program can generate significant savings for your operation.

**68%**  
of customers are **paying more for their lease than they should.\***

\*2016 DLL Utilization Survey of 3000 units





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 m<sup>2</sup>) 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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**GO FOR GREEN**  
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