

# UPtimes

SENNEBOGEN®

Vol 2 • Issue 1 • 2015

...news and innovations from the world's leader in materials handling



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# From Where We Sit



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## Safety, Success, Satisfaction

Advertising by the Industrial Accident Prevention Association used to say, “*Knowledge. We’ve Got It - Let’s Use It.*”

Their goal was to remind workers and employers that they have to practice safety in the workplace, not just preach it. Workplace injuries are costly to everyone, but nobody pays more than the individual victims and their families. The time we spend visiting customers – in the yards, at the jobsites, on the docks – has brought us many friendships. Their health and safety is a very personal concern.

**Safety on the job starts with knowledge**, and that’s why SENNEBOGEN invests so much in training programs every year (Page 26). We provide technicians with hands-on training and operator familiarization. A well maintained machine is a safer machine. Best practices enable safer operation of those machines. We share our knowledge of the equipment we build, because we want to do our part to keep our industry safe. But we also know that **training is not enough**. Safe practices begin with knowledge, but a safe workplace starts with safe equipment.

As an engineering-driven company, SENNEBOGEN recognizes safety as a never-ending quest. Safety has always been a top-of-mind concern for our design team. Our new E-Series machines reflect that commitment to building the safest machines in the industry (Page 22).

As direct and indirect costs continue to rise, job safety has become a serious business for employees and fleet owners. When customers tell us that they will require strict safety measures before they will allow new equipment on their sites, we are proud to show them how all their requirements will be met with factory-standard features from SENNEBOGEN.

### MILESTONES

These past years have brought us together several times for celebration. A number of our North American equipment distributors marked 10 years or more as our sales and service representatives. These valued allies not only carried our banner for over a decade, they have all achieved the highest level of success as top sellers in our Distributor of the Year awards. Their ongoing success and adherence to our business principles has been a key factor in our growth in both Canada and the United States to becoming an industry leader.

This was also a year to welcome several new distributors who add valued depth and strength to our customer service network. Our reputation for dealer support and product quality is gratifying. One new dealer principal went so far as to tell his sales team, “Acquiring the SENNEBOGEN line is a *gift!*” for opening new doors and satisfying customers’ production requirements.

Safety, success and customer satisfaction... these are “UPtimes” for SENNEBOGEN indeed!





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Connect here to see over **160 videos** on  
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Alco's Jerry Lynch appreciates how his 825's elevating cab and cameras provide extra safety on his busy multi-purpose site.



# SENNEBOGEN Versatility Supports Recycler's Business Model for Growth

Operating under the same family ownership for more than 60 years, Alco Iron & Metals recently added a fourth scrap-processing yard to its operations in the San Francisco Bay area of California. "Our business model evolved from our customers," according to Kari Fletcher, Manager of the Vallejo yard explains. "We build good relationships based on trust with our service and our knowledge and the right equipment. Then the customers ask us what else we can do for them to assist them in their businesses."

The result is a network of facilities built to support "a complete circle in metals." Alco yards collect and process both ferrous and non-ferrous metals, and also distribute new structural steel, aluminum and copper. The firm even takes on demolition projects providing additional source of materials for recycling. Fletcher explains, "This model creates opportunities for us to grow within our own customer



Kari Fletcher and her family are continuing to build on Alco's 60 years of growth by offering customers "a complete circle in metals" from collecting scrap to supplying structural steel.

base, as both a seller and a buyer of customers' metal."

Alco's General Manager in Stockton, Jerry Lynch, has also seen how this growth strategy works. "Our business plan is all about taking care of the core customer," says Lynch. "We're your one-stop shop: we'll recycle your materials and we'll sell you your new materials from the mills."

The range of activities in Alco's 35-acre yards puts extra demands on their loading equipment. To achieve the flexibility to take on multiple tasks, Alco relies on its new SENNEBOGEN 825 M. "At any time, we could need our material handler to move right to the opposite end of the yard. We were looking for wheeled machines for their mobility, and SENNEBOGEN won out. It's very helpful being able to bring the SENNEBOGEN right into our warehouse," says Lynch.

In the Stockton yard, Lynch sees his 825 M as more than a material handler. "We have a lot of jobs that need equipment like this, so we use the SENNEBOGEN as a "utility" type of machine. It gives us the versatility we need to be flexible. It can load different containers and move material in the yard. Or we can put it on a truck to help process material on a demolition site." ■



# “E” is for Excellent!

The SENNEBOGEN 818 E-Series material handler packs in all of today’s most advanced features for efficient, economical, environmental performance in a compact new package. This Tier 4 compliant machine can be equipped with up to a .75 cu. yd. scrap grapple. The 818 E-Series comes with a 10 kW magnet system and weighs in with a lifting capacity of 3.7 tons with a maximum reach of 33 ft. (10 m).

-  **Efficient Performance**
-  **Easy Maintenance**
-  **Maximum Safety**



## Operating Comfort

Climate controls and adjustable ergonomic seat minimize operator fatigue. Intuitive operation with highly responsive joystick control and SENCON control system.

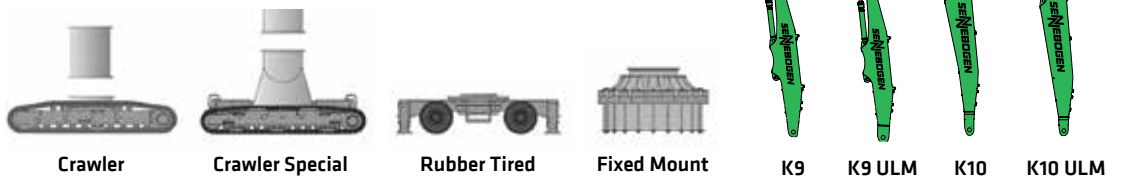


## Environment & Economy

Reduce costs and keep a healthy environment with “ECO mode” fuel savings, longer hydraulic oil change intervals and low noise design. Available as either a diesel or electric model.

## Flexible Solutions

Modular design with optional boom & stick configurations, choice of wheels, crawler and stationary undercarriages; range of OEM attachments.



## SENNEBOGEN Design Makes Upsizing Easy for Expanding Scrap Operations

With the opening of one of the largest scrap processing facilities in the western states, Metro Group has turned to its trusted long-time partners to support its higher demand for material handling volume.

Metro Group is a fifth generation metals recycling and transportation firm which recently opened the doors to its largest facility in Salt Lake City. According to Metro's Vice President of Operations Dan Floyd, the demands of his new site will call for a step up in equipment.

"We were SENNEBOGEN's first customer west of the Mississippi," Floyd reports. "Our first machine worked very well, with increased production and easier servicing by our technicians." Since that first trial in 2004, Metro standardized on the 825 M green machine for its six collection and transloading centers.



Six Metro locations in the Salt Lake City area all utilize SENNEBOGEN 825 material handlers for their truck and rail loading operations.



Experienced Metro operators are pleased with the comfort and control afforded by the elevating maXCab provided for any SENNEBOGEN model.

But for the higher demand at its newest location, Floyd and his team decided to make a move up from the 64,000 lb. (29,025 kg) model to the 100,000 lb. (45,360 kg) SENNEBOGEN 835 M.

Because Metro equipment is serviced by its own technicians, the team appreciates consistency in service procedures and parts. According to Constantino Lannes, President of SENNEBOGEN LLC, there's a great deal of commonality in the design of the SENNEBOGEN green machines. The wide range of models use the same parts, the same service procedures and the operator cabs are identical. That means extra value from their investment in SENNEBOGEN and in their service team. Several Metro mechanics traveled to the SENNEBOGEN training facility in Stanley, NC, for hands-on instruction in machine diagnostics and troubleshooting. Metro President Mark Bond observes, "A lot of OEMs don't want to show anybody else how to service their machines, but SENNEBOGEN has been very open about helping our technicians." ■



## Demolition Expert Takes SENNEBOGEN's Lead for Equipment Safety

MCM Management Corp, listed as one of the Top Ten demolition contractors in America, had not expected to make a change in its choice of hydraulic material handlers.

But when the firm's preferred model was discontinued by its OEM, MCM's Fleet Manager, Dan Perry, found that his search for a suitable replacement also took his operations a step forward in safety.

"There are so many hazards in this field of work; SENNEBOGEN recognizes it and we're looking at our equipment the same way. The 825 gives us an unparalleled level of safety to protect the operator and maintenance crews," Perry continues. "The operators' input to us was that they really liked having these cameras and they feel that it provides them with an extra level of safety. SENNEBOGEN does a great job with their catwalks and cameras, so we took that and adapted it and where possible customized our other machinery as well."

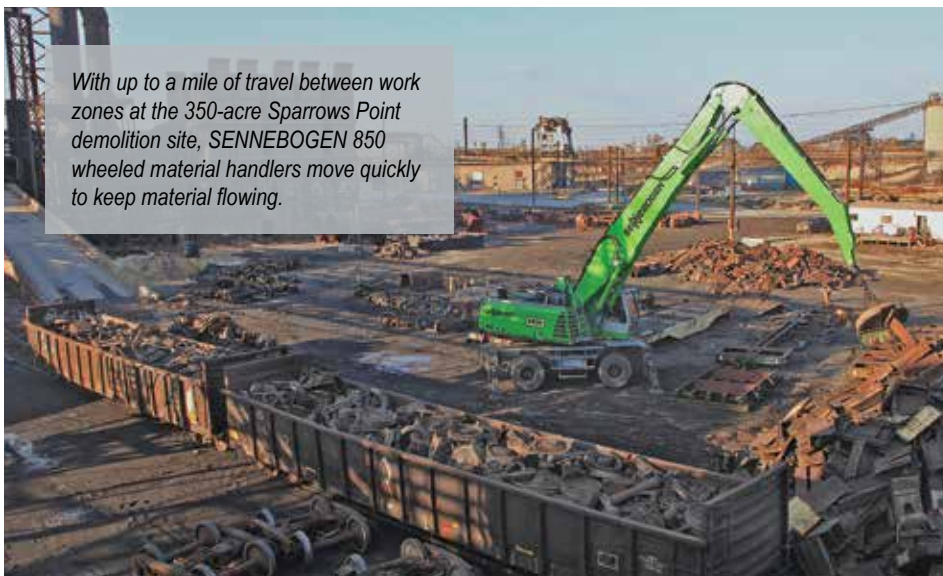
heavy equipment has been getting retrofitted with similar handrailings, including their demolition excavators up to 250,000 lbs. (113,400 kg), large dozers and water trucks.

On large sites where a crawler-based machine could take all morning to move from one job to the next, the wheeled machines make the trip in just 5 or 10 minutes. Simply getting the machines to the project site was also a major factor in MCM's decision to go with SENNEBOGEN equipment.

"The fold-up transport mode of this machine (the 825 M) was a big, big thing for us – it was a key factor in Michigan. You just drive it onto the heavy hauler and drive it off. With our previous machine, you had to remove the stick and reassemble it at the job."

### Equipped for major projects

Since MCM acquired its first 825 M wheeled material handler, its SENNEBOGEN fleet has expanded to include an 840 M and an 850 M. Today, most of the green machines



*With up to a mile of travel between work zones at the 350-acre Sparrows Point demolition site, SENNEBOGEN 850 wheeled material handlers move quickly to keep material flowing.*

Along with the guarding that SENNEBOGEN includes as standard equipment, Perry notes that the machines' auto-lube feature also makes them safer, as operators and technicians now spend less time walking on and around them for servicing. MCM's large fleet of

are at work on one of the nation's largest-ever demolition projects: decommissioning the 350-acre site of former Sparrows Point steel mill in Maryland. MCM will recycle 98% of the recovered material, with only the asbestos and other regulated wastes going for secure disposal. ■

## SENNEBOGEN 870 R-HD Reaches New Heights With LVI/Mazzocchi Wrecking



*Equipped with a 182' (55 m) long reach boom & stick, the SENNEBOGEN 870 R-HD makes quick work of the site.*

LVI/Mazzocchi Wrecking specializes in the demolition and dismantling of high-rise buildings, industrial structures, bridges and marine projects on tight sites where doing it by hand is not an option and traditional methods like wrecking balls and explosives are not possible.

The SENNEBOGEN 870 R-HD has proven itself to be a flexible solution for this unique application. Painted in the company's trademark orange, the 870 R-HD is equipped with a 182' (55 m) long reach demolition boom and stick front. This tracked unit has been one of the company's most durable and reliable LRDs since it went into service. ■

## SENNEBOGEN Support And Durability Are Critical To Customers In Remote Regions

### SENNEBOGENs withstand “Brutal” West Texas environment

Scorched by high temperatures and whipped by dust-laden wind, Scott Wilkinson’s material handlers were “constantly” sidelined for mechanical breakdowns and maintenance.

Over the past several years, Wilkinson Gary Iron & Metal has learned that purpose-built SENNEBOGEN material handlers are among the rare breed of machines that can stand up to the West Texas climate of Laredo.

“This is just a brutal area of the world,” says Scott. But with the SENNEBOGEN material handlers, “You don’t have the repair bills and breakdown issues that you normally have with converted excavators,” he says. “We always have the SENNEBOGENs running.”

About the same time the Laredo yard added its 835 M, the company launched a program to track equipment operating costs, comparing new units to older machines in the fleet. “Operating the SENNEBOGEN material handlers in Economy Mode



has reduced fuel costs by one-third. When combined with increased availability and reliability, it gives us the opportunity to control our costs and reduce our expenses.”

He notes that his SENNEBOGEN equipment will operate throughout the day without overheating the engine or burning out any of the hydraulic system’s components. An automatic reversible fan keeps the cooling system clear. “I definitely want us to have a complete green fleet out here.” ■

### “Elegance” in the middle of nowhere

John Korey knows right where his recycling yard stands in the machine world. “El Paso is a city of 600,000 but, if you look at where we’re located on a map, we’re somewhat in the

middle of nowhere. It’s 750 miles (1,205 km) to Dallas and 480 miles (770 km) to Phoenix, where most folks have a service presence. That leaves us out on our own here.”

Korey acquired a new E-Series SENNEBOGEN 830 M for W. Silver Recycling Inc., where he is Regional Operations Manager. “We were having challenges here with uptime, parts availability and overall support. Other OEMs just can’t meet that.”

“These machines are an elegant blend of engineering and functionality,” he says. “Their uptime is fabulous. When my operator is just grinning from ear-to-ear because he loves how the machine operates; and my maintenance guys are thanking me because they are so easy to work on... that’s where I really see that *elegant blend*.”

Korey continues, “Our summer temperatures of 104, 105 degrees are more like 125 on the ground ... but the SENNEBOGENs just run. We get below freezing here too, so it’s a very wide range of ambient temperature. And those machines just perform flawlessly. They don’t know whether it’s January or July.” ■





eGREEN

Max Becker Trading GmbH was able to cut operating costs more than half without compromising on performance. Equipped with a 250 kW electric motor, this 850 R Special Electro is able to service a 13,000 sq. ft. (1,200 m<sup>2</sup>) loading zone from its perch at the yard's scrap shear.



## The Power to Save

SENNEBOGEN electric drive reduces operating costs at every level for material handlers

SENNEBOGEN has been leading the “switch” to electric power in scrap handling for many years. Now, electrically powered machines are working in jobsites worldwide. Recyclers are seeing the results in every aspect of the operation. In the Americas, SENNEBOGEN President Constantino Lannes is frequently asked to introduce to facility owners and managers the benefits of electric drive.

“Many yards are already operating their heavy processing machinery on electric power. In these applications, it’s a simple matter to plug into the same power supply for loading equipment.” He readily cites potential savings in numerous areas. A brief summary includes:

- 1. Lower energy costs:** In most industrial regions, electricity is priced lower than diesel for equivalent power. The efficiency of our electric drives also mean less net power is required to complete the same tasks.
- 2. Less maintenance:** Replacing a diesel engine with an electric motor eliminates most service needs from the machine. Electric drive incurs no costs for lubrication and filters and all related service parts.
- 3. Reduced downtime:** Electric drive instantly increases the productivity of your material handler and the equipment it supports. There’s virtually no need to schedule downtime for routine maintenance and no breaks for refueling. ■



Marc Olgin chose the SENNEBOGEN 835 A electric drive material handler to pair with his shredders at Liberty Iron and two associated recycling sites. “We ran a comparison of the 835 with electric drive against the same machine with a standard diesel engine,” Olgin reports. “Overall, the electric drive unit showed a savings of more than 70% of the energy and service costs. This equipment ensures that we will be ready to handle higher volumes competitively in the long term, with the highest uptime and the lowest possible operating cost.”





# New Growth

Specialized Log-Handling Equipment from SENNEBOGEN Brings New Choices For Diversity And Productivity In Logging Equipment



830 M-T Trailer Puller



735 Pick & Carry



830 M-T with Live Heel



830 M-HDS Single Tire



825 M with Dead Heel



821 M Loading & Sorting



825 M Loading & Stacking



# The Top Pick For Pick & Carry

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 specially designed for free-standing use with safe working loads up to a maximum of 20 t. ■

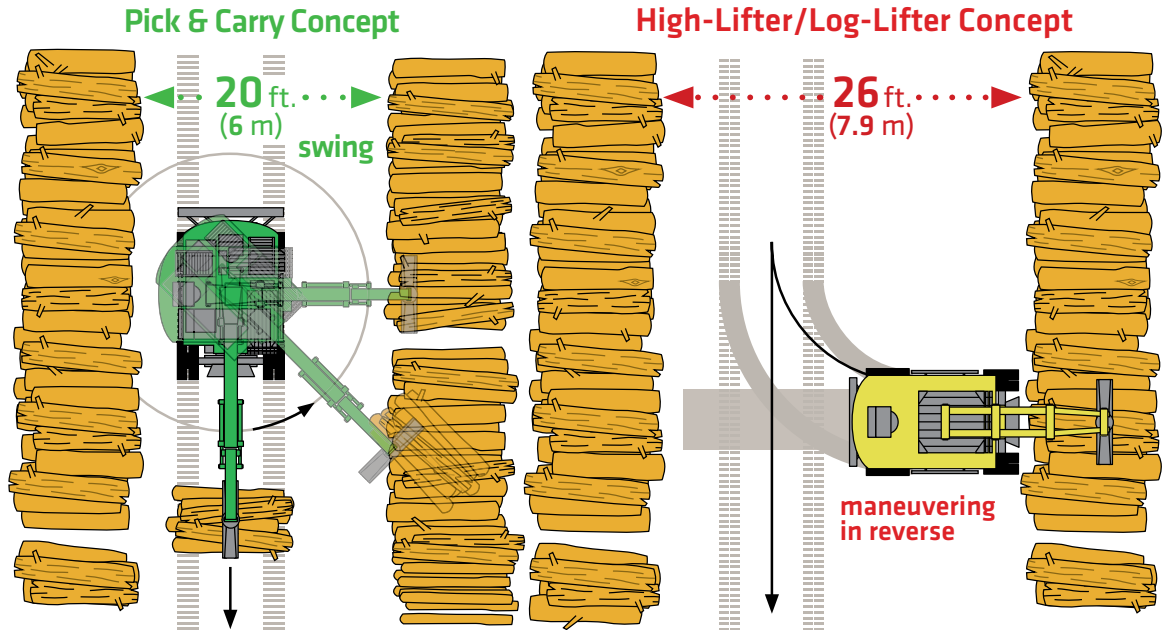


A wide-stance undercarriage lets the 735 cover ground in wood yards at forward and reverse speeds up to 12 mph (19 kph).

**25%\***

## Less space needed between rows

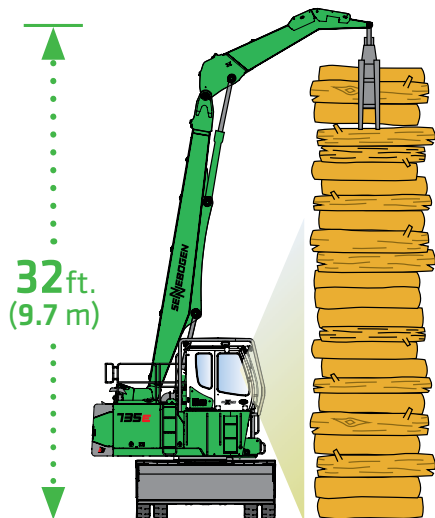
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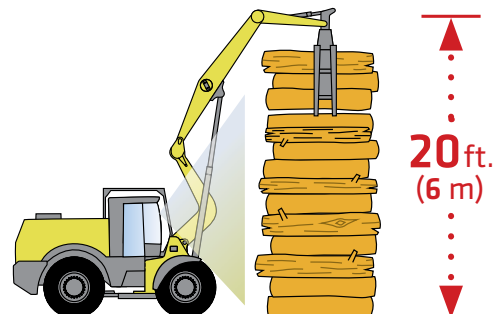
**50%\***

## Higher stacking

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



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



\* Percentages will vary depending upon conditions.

## Balance Technology Does More With Less

This SENNEBOGEN 8130 EQ combines innovative balance technology and an electric drive system that delivers maximum throughput at a minimum operating cost.

Building on SENNEBOGEN's experience in the design of equilibrium-style material handlers, the new 8000 EQ family of machines is finding a welcome reception in wood processing facilities. The most basic of engineering principles, the lever, is at the heart of the new technology to lift heavy loads through rapid duty cycles with the least possible expenditure of diesel or electric power.

At Pollmeier Massivholz GmbH, an electrically driven 8130 EQ is the heart of a new veneer layer lumberyard producing glued laminated beech panels on a large scale. The 8130 EQ stands at the beginning of the overall process. It unloads the logs from trucks and positions them on the logwood cross-cut system. After fully automated peeling and debarking, the trunks go into the conditioning basins arranged in a fan shape around it.



*The 8130 EQ provides a clear view of the entire plant, so its operation can be monitored and controlled simply from the operator's cab.*

Each conditioning basin has a capacity of more than 200 cu. yd. (150 m<sup>3</sup>) of wood. At its busiest, the plant will receive trucks all day long delivering logs. The plant is expected to process up to 45 cu. yd.

(35 m<sup>3</sup>) per hour, peeling the logs into veneer sheets which will be laminated into panels.

To keep the wood moving, the 8130 EQ provides a load capacity of 5 tons with a reach of up to 88 ft. (27 m) SENNEBOGEN's balancing technology compensates for the full energy demand of moving the weight of equipment itself. It expends power primarily to lift and swing only the weight of the actual material. Like the rest of the Pollmeier plant, the material handler is electrically driven, achieving additional savings in energy cost while enabling non-stop production around the clock, when needed. Compared to conventional hydraulic lifting systems powered by diesel engines, this 8130 EQ can save energy costs and operating costs of up to 75%.

Along with the 8130 EQ electric drive, all three base models of SENNEBOGEN EQ machines are also available with a full range of mobile and stationary mounts. Lifting capacities range from 4.5 tons up to 6.0 tons, with a wide choice of boom lengths from 69 - 115 ft. (21 - 35 m). ■



*The SENNEBOGEN 8130 EQ is mounted on a fixed pedestal, but it covers a 23,000 sq. ft. (2,100 m<sup>2</sup>) area to load Pollmeier's logwood cross-cut system and conditioning basins, which are arranged in a fan shape around the machine.*



## Green Machines Energize Biomass Operations

Barely recognized as an industry when SENNEBOGEN first came to America, biomass plants have become a significant producer and consumer of forestry and wood products.

Thomas Vine has big plans for his facility's SENNEBOGEN 825 M material handler.

He manages operations at Viking Energy of McBain, LLC, a Michigan biomass energy plant. With the completion of a rail spur to his plant last June, Viking's green machine is tasked to off-load used rail ties from open hopper rail cars to feed the mill's 500 tons/day appetite for wood fuel.

The McBain facility is a subsidiary of GDF Suez, one of the world's largest independent power producers with plants around the world. It's a busy place that puts a premium on productivity and uptime. And that's what attracted Vine to SENNEBOGEN.

The Viking plant processes a blend of waste wood, creosote treated wood, (mostly railroad ties) and used rubber tires to generate roughly 143,000 MWH of power annually – enough for about 14,000 homes. Unlike similar plants, Viking processes whole railroad ties onsite. The SENNEBOGEN 825 M is used primarily to feed the plant's two grinders. Vine explains, "Many



biomass plants buy their fuel already prepared usually in the form of chips... McBain does the chipping operation itself using a low speed grinder feeding into a high speed hammer mill."

Previously, McBain off-loaded used rail ties from rail cars onto logging trucks at a freight yard about 10 miles (16 km) from the plant. With the new

spur, the 825 M simplifies the process and speeds up cycle times, picking up 8 to 10 railroad ties at a time. The machine's elevating cab, raising the operator to a 19 ft. (5.8 m) height is a big part of the operation's productivity. "The operator can see into open rail car hoppers. For its size, it's the highest in the industry. This was a major deciding factor for us." ■

## Mix Master

Louisiana-Pacific brought its SENNEBOGEN 735 material handler into service as part of a plan to repurpose its New Limerick mill for the production of Laminated Strand Lumber (LSL).

With its unique rear-mounted boom, the 735 M-HD provides a very smooth, stable ride as it travels the yard picking a specified wood mix for the LSL recipe. Compared to more familiar crawler-mounted log loaders, the speed and agility of the 735 M-HD



are ideally suited to this sorting application. The 735 is balanced to lift its maximum load through 360° of

rotation without requiring outriggers, saving time for every pick. With no side-view obstructions to the operator's line of sight, it allows safer operation with comparatively fast cycle times.

Like all SENNEBOGEN material handlers, the 735 M-HD was engineered from its inception to last in rough work environments, featuring an extra strong structure and robust hydraulic components. ■

# SENNEBOGEN Log Handler Raises The Roof For Hardwood Mill

After three generations as a successful hardwood mill, Church & Church Lumber Company was eager for more throughput capacity.

The sawmill in Wilkes County, NC, is now operated by its founder's grandson, Mark Church. Handling a wide variety of hardwood species, the mill produces primarily poplar, white oak and red oak lumber to be kiln-dried and marketed through another of the family businesses, Select Hardwoods.

"We made a huge investment in the yard over the summer to increase our



*With the 825, Church & Church can now stack logs up to 20+ ft. (6.1+ m), effectively doubling the size of their operation without making the yard bigger!*



*The elevating cab of the 825 helps operators to position logs precisely, answering Mark Church's concerns about the safety of high-stacking logs of varying lengths and irregular diameters.*

The extra reach and cab elevation answered many of Church's needs. The new log handler would allow the yard to stack logs to heights up to 20+ ft. (6.1+ m) – effectively doubling its inventory capacity.

"I like the safety aspect of it," says Mark Church. "You're actually up over the rick, looking down on the logs, able to place the logs where you want. Stacking accurately is important with the variation you get in the length of the logs and the variation in diameter from the small end to the butt end - especially with that first cut at the stump."

"It's worked out beautifully. We're stacking higher and it hasn't cost me any more for time or another shift." ■

efficiency. But did we make any more room?" Mark asks rhetorically. "No..."

Up to then, Church & Church was using traditional log-handling equipment, including a knuckleboom loader to sort logs as they arrive, plus wheel loaders to stack and unload from the ricks. Mark got to see his

first SENNEBOGEN log-handler in action when he visited another nearby log yard with his forester and yard manager. He immediately saw how a purpose-built material handler offered a big advantage in reach. "Then, when I saw that cab go up in the air I said, *Oh yeah – that's the trick!*"





## Two Yard Managers – One Decision

When it came to choosing a replacement for their aging log-handling equipment, the managers of two Stella Jones pole-processing plants working 500 miles (800 km) apart, came to the same conclusion.

Bob Stewart, in Prince George, BC, and Richard Harkies, in Galloway, BC, both report to North America's leading provider of utility poles and railway ties, Stella Jones. But the two men are responsible for making the decisions to manage their own operations.

Today, the Prince George and Galloway facilities are both running new purpose-built SENNEBOGEN 830 M-T material handlers.

### Two paths to the same machine

When Stewart proposed the purchase of the 830 M-T to head office, the Galloway mill run by Harkies was not yet part of Stella Jones. "We had already looked at the other two big names in material handlers," Harkies recalls. "Then our dealer

took us to see a SENNEBOGEN demonstration in Lavington. We hadn't actually heard of SENNEBOGEN before then!"

Stewart had also done some shopping before choosing SENNEBOGEN. "We looked at 3 or 4 different makes of machines last year, made our decision on SENNEBOGEN and put together the business plan to acquire it."

### Fit for purpose

The two trailer-pulling material handlers were equipped with a live heel and fitted with Rotobec log grapples customized with widened tines and tips to minimize damage to the wood. While the two sites differ in some ways in their specific application, their managers are



*The stability and smooth pulling power of the 830 M-T is well suited to the 1/2 mile circuits in the Galloway log yard.*



*The custom elevated cab on the Stella Jones machines help operators to load efficiently without damaging poles.*

equally satisfied that the 830 M-T was the right way to go.

The Prince George plant processes both utility poles and railway ties, so its log handler has to manage moving and loading square timber as well as round wood. "We stack the ties in packs of 25 for air seasoning, then we load the bundles onto gondolas for delivery," says Stewart. "The 830 M-T pulls a tridem trailer loaded up to 75,000 lbs.(34,000 kg) It might be larger than we really need, but we wanted to be prepared for future demands, too."

Richard Harkies also cites improvements in mobility among the advantages of the 830 M-T. "We have to drive a half-a-mile from one end of the yard to the other. With a separate transmission on each axle, it pulls smoother, it doesn't shift as hard and it's more stable." ■





# “Green Machines” Greener Than Ever

Barge facilities in America are “going for the green” to capitalize on SENNEBOGEN’s latest developments in lifting technologies.



With our Green Hybrid energy recovery system, the 875 port handlers are earning more cash for stevedoring companies while they leave a “greener” footprint on the environment.

**Green Hybrid Energy Capture**  
SENNEBOGEN’s advanced design utilizes our hydraulic expertise along with nitrogen gas accumulators to cut the required lifting energy (and its cost) by 30%.

This energy capture returns additional savings by reducing heat and wear throughout the machine’s power systems.

**A Safer Solution**  
The most visible difference in the design of the 875 E-Series machines is the large Green Hybrid cylinder mounted between the two main boom lift cylinders.

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 Efficiency” Turns Faster Profits

Turner Fabian has never been one to shy away from a big new idea.

Seven years ago, as part of Charleston Bulk Transfer (CBT), he coordinated the purchase of the first SENNEBOGEN 880 R-HD material handler in North America. Weighing in at 310,000 lbs. (140,610 kg), the giant machine known as “Big Jack” quickly became a highly familiar - and highly profitable - fixture supporting multiple projects on the Charleston waterways.

### So why did he suddenly sell it?

“It was a matter of timing, really,” admits Fabian. “Last year when I was in Germany, I saw the new 875 R-HD E-Series at work. I realized what it could do for our operation and I couldn’t pass it up!”

### Money in the bank!

The latest addition to the SENNEBOGEN green line is slightly smaller than the 880 R-HD, but Fabian reports that Li'l Jack has no problem



*The 875 R-HD model operated by Charleston Bulk Transfer can move material as quickly as the giant 880 R-HD it replaced, but it consumes less than 60% as much diesel fuel.*



unloading barges at the pace set by its predecessor.

Big Jack was able to move 9 tons of coal in less than 30 seconds, and its fuel consumption was the best amongst all competitive machines at the time. The new 875 R-HD operates with the same 12-yard bucket and it achieves even faster cycle times. The idea paid off quickly for CBT. In 5 months of operation, the 875 completes the work faster on an astonishing 43% less diesel fuel! As Fabian says, “It’s money in the bank!”

### “Green Efficiency”

Powered by a 540 HP Cummins engine, the 875 introduces a new “Green Efficiency” package of innovative engineering features for E-Series models. The combined result is improved fuel economy, lower emissions, quieter operation and longer lifecycles. ■

The new 875 E material handler combines high-capacity production with the industry’s new standard for cost-efficient performance

- Accumulators capture potential energy generated by vertical boom movements
- Recover up to 30% of lifting energy from the boom
- Engineered with standard hydraulic components
- Guarantees high productivity, fast cycle times combined with high lift capacities

EXPERIENCE THE SYSTEM



SCAN TO WATCH AN ONLINE VIDEO DEMONSTRATION



## Thunder & Lightning “100 Times Better” For Busy Ohio River Barge Service

Operator Jim Clayton runs one of two new SENNEBOGEN 870s nicknamed “Thunder” and “Lightning.” for Mt. Vernon Barge Service at the Port of Indiana. “I’ve been doing this for 30 years and this machine is great,” said

Clayton. “It’s 100 times better than our stick cranes.” Adding the pair of 870 machines effectively doubled the unloading speed and capacity of the firm’s barge facility. ■



# SENNEBOGEN Provides A Critical Link In PCB Remediation On The Hudson River

Approximately three times a week, for six months of the year, trains depart from upstate New York, en route to one of three EPA-approved long-term disposal facilities.



The trains, which are loaded with dewatered, PCB-containing sediments, represent the last leg of a complex environmental dredging project undertaken by General Electric Co. in New York's Upper Hudson River.

To keep these trains on schedule, GE relies on two purpose-built material handlers from SENNEBOGEN, an 870 R-HD and an 870 M, each moving 2,500 - 3,000 cu. yd. (1,900 - 2,300 m<sup>3</sup>) of sediment per day from hopper barges that continuously cycle up and down the river filled with dredged sediments and water removed from the river.

GE purchased the 870 R-HD after learning about its unique capabilities. "We recognized that our operation required equipment with a specific reach and height," said Timothy Kruppenbacher, GE's Operations Manager, Global Operations Environment, Health & Safety. "The bucket had to reach down 12 ft. (3.6 m) into and across the

hold of the 35 ft. (10 m) wide scows, then clear a 30 ft. (9 m) height to reach above the rim of the hopper feeding our processing stations."

Kruppenbacher compliments the speed, precision and safety of the equipment. "With the level-cut buckets, the 870s can clean out the barges down to bare metal, without damaging the bottom of the vessel.

These barges are light, built for minimal draft in the river but we have not had any problems with damage from the use of the 870s. The machines have performed very well, and reliably."

Uptime is a critical factor for equipment on this job, as GE's work schedule is restricted by the seasonal closure of the New York State Champlain Canal each year. John Waechter, Project Manager for the project's processing operations contractor, CB&I Environmental & Infrastructure said, "Altogether, there are more than 85 pieces of heavy equipment and vessels working in a continuous process, running 24/6 each week of the season. Even a few hours of unexpected downtime has a costly ripple effect on the whole project."

Each barge requires four to six hours at the unloading station, including about two hours to decant the barge (pump off the free water). The SENNEBOGEN machines then move the material from the barge to a feed hopper equipped with a grizzly screen. On an average day, together they will unload six to eight barges or up to 5,000 yd. (3,825 m<sup>3</sup>) of sediment. ■





# Breathwit Marine Impressed With SENNEBOGEN “Truckability”

When Breathwit Marine Contractors acquired the assets of Tex Mex Marine in December 2007, included was a SENNEBOGEN 835 M material handler, already in place and working in a port transfer application. More recently, Breathwit relocated the 835 M to the Turkey Bend Island (TBI) Navigation Yard in Houston, a property of Cemex USA. There, the 835 is fitted with a 2 cu. yd. (1,5 m<sup>3</sup>) clamshell bucket to transfer sand and gravel from barges to hoppers, feeding Cemex’s asphalt and cement plants.

“It’s all part of a package deal we offer them,” says Cliff Breathwit, General Manager of Breathwit Marine Contractors. “We haven’t had any problems with the SENNEBOGEN machine since taking ownership of it. It’s proven to be a very reliable machine for this particular application.”

## Breathwit is a diversified company

As a parent company, Breathwit Marine Contractors oversees 22 different companies. The company got its start in the towing business in the early 1980s with one tugboat and one barge. Today it has nine tugboats and thirty-six barges. Breathwit estimates that in 2008 the company transported about 1.5 million tons of sand and gravel to the Houston area and unloaded the majority of it using their own material handlers, including the 835 M.



The SENNEBOGEN machine was originally purchased by its former owners from Waukesha-Pearce Industries (WPI). According to Breathwit, his company has a long-time relationship with Waukesha-Pearce as an equipment supplier. Breathwit Marine also provides barge transportation services for the Houston-based dealer. Breathwit indicated he just loaded one of WPI’s SENNEBOGEN rental units onto a Breathwit Marine barge for delivery to a customer doing hurricane clean-up in the region. He says that WPI is very attentive to Breathwit Marine’s needs and notes that service calls for the 835 M have been dealt with in a very timely manner.

## The 835 M gets around

Breathwit reports that his SENNEBOGEN 835 M is very “truckable” in comparison to some of his other material handling equipment. “Some of our other equipment requires a major disassembly to get it on a trailer and transport it anywhere – not our SENNEBOGEN. You just lift its outriggers, put it on a trailer and away you go.”

“The 835 M does a great job at the TBI yard,” Breathwit continues. “Our operators say it’s really smooth and efficient. And because they have to look down into the barges when they are unloading them, they find the SENNEBOGEN machine’s elevating and tilting cab a necessity for this application.” ■



## Engineering On The High Seas

*Gino Cucco* is a TSHD (Trailing Suction Hopper Dredger) operated by La Dragaggi s.r.l. The vessel is equipped with a gross hopper capacity of 1,500 cu. yd. (1,150 m<sup>3</sup>) for dredged material. Its crew boasts of carrying the largest material handler in Italy, a SENNEBOGEN 880, mounted to its deck. The *Gino Cucco* travels throughout the Adriatic to support major engineering projects in land reclamation, harbor and dock dredging works and environmental requalification like lagoon area clean-up. ■

## “Business Is Picking Up!” At Lindy Paving

As part of the P.J. Dick family of construction and contracting companies, Lindy Paving has a voracious appetite for asphalt.

To help meet the demand of its many projects throughout western Pennsylvania, Lindy’s Neville Island site near Pittsburgh was developed as a fully integrated asphalt manufacturing and distribution facility.

Lindy purchased its new SENNEBOGEN 870 M rubber-tired material handler to take over loading operations at its Neville Island port terminal. The terminal has used converted excavators for loading operations in the past, but the new SENNEBOGEN machine performed well enough that a second one has been purchased for the terminal.

Located on the Ohio River, not far from Pittsburgh International Airport, the Lindy terminal receives a steady stream of 1,500 ton barges laden with sand and aggregate for asphalt production at the island’s nearby plant. The terminal also receives and stores loads of salt for de-icing highways in the winter. For several years now, Lindy has also provided port services to Shenango Steel. Shenango’s coking plant on Neville Island is located adjacent to the Lindy terminal property. The Lindy terminal is under contract to handle the barges of coal which Shenango bakes into about 380,000 tons of coke per year.

*The two SENNEBOGEN 870 M machines now on the job at Pittsburgh’s Neville Island river port are equally home offloading aggregate for Lindy Paving or coal for Shenango Steel.*



The first 870 M logged approximately 6,000 hours through its first 30 months. Lindy then returned to Gibson Machinery, the Cleveland-based dealer for SENNEBOGEN machines in the region, with a location on Neville Island (Pittsburgh) to handle product support, equipment sales and rentals in the western Pennsylvania and western Virginia territories, for a second machine identical to the first.

The two “green machines” now work side-by-side, non-stop, at the terminal. Each machine is capable of offloading three jumbo barges per shift as well as stockpiling and loading trucks.

The purpose-built SENNEBOGEN equipment is a big improvement over the excavators they replaced. They’re

two different machines trying to do the same job. The SENNEBOGEN is really made for unloading barges - the excavator is made to dig and needs to be converted for this work.

Lindy’s terminal managers first learned about how SENNEBOGEN could fit into their operation when Gibson Machinery’s equipment specialist arranged a demonstration on their site. Lindy soon learned that some of the Gibson technicians lived in the same area as their own technicians, so service has never been a problem.

The SENNEBOGEN 870 M is a 165,000 lb. (74,840 kg) unit with a nominal reach of up to 66 ft. (20 m). The models working at the Lindy Paving terminal are equipped with a clamshell bucket. Both feature SENNEBOGEN’s popular elevating cab, which gives operators a much improved view into the hold of the barges and into the trucks. From an excavator cab, the operator can only see into half of the jumbo barge, where the SENNEBOGEN material handlers provide the height to see directly into the entire hold, and move material out more efficiently.

With the right loading equipment in place and good customers right next door, business is still “picking up” at the Neville Island terminal. ■



*Well known for their efficiency and durability in the scrap-handling industry, SENNEBOGEN “green machines” are becoming a familiar sight in port facilities throughout the Mississippi watershed.*



# Mobile Port Handling At BLG Logistics: Energy-Saving And Flexible

"Something big is headed our way," Andre Heidkrüger of BLG Logistics may have thought as the new SENNEBOGEN 875 material handler arrived at the Port of Neustadt (Bremen) in March 2014.

The new port material handler has proven itself, unloading ships with ease and flexibility and ease of use. Highly visible in the port, the machine always attracts attention for its mobile undercarriage and its hybrid energy recovery system.

This is something the founders of Bremer Lagerhaus Gesellschaft would not have dared to dream when they started the company in 1877. Over the course of more than a century, what started as a small, regional association has grown into a logistics company spanning the globe. Bringing cargo through the ports has always been the firm's foundation for success. In the mid-1990s, the BLG Logistics Group grew from a local port handling company into an international logistics service provider. From shipping containers to automobiles, it moves it all. Back in Bremen, where it all began, cargo handling is still very active and with the new SENNEBOGEN 875, it has been given a big boost.

Since its arrival, the new SENNEBOGEN 875 has been providing its services at the quay as a material handler that is both innovative and efficient.

## Mobility on a large scale

A 165-ton machine moving on a wheeled undercarriage is an imposing sight. The four-axle, wide-gauge undercarriage is hydraulically driven, allowing the 875 to reach speeds of up to 3.1 mph (5 kph). Loading and unloading incoming ships goes quickly. A few hours after arriving, these ships must leave once again.

BLG Cargo Logistics operates in the Port of Neustadt in Bremen, Europe's largest terminal for conventional freight. With around two million tons of cargo being handled here.

The 875's day-to-day cargo largely consists of timber products and large-diameter pipes. Depending on the cargo, the duty cycle is quick. This is substantially better than the previous rope crane. More importantly, however,



*Thanks to its mobile undercarriage, the 875 can relocate itself anywhere in the port with ease.*

the machine can be used at different locations at the port thanks to its mobile undercarriage. Various attachments, from cargo fasteners to vacuum crossbeams, can be switched out quickly on the go.

## Saving energy with every stroke

For the people in charge at BLG, the deciding factors were the flexibility, mobility and the low operating and service costs. An innovation developed by SENNEBOGEN, the Green Hybrid energy recovery system saves up to 30% of the energy required by conventional machines. The SENNEBOGEN principle is easy to understand. When the boom is lowered, a large hydraulic cylinder placed directly between the two hoist cylinders stores the energy it produces in compressed gas cylinders. This accumulated energy is then put to work to assist on the next upstroke.

BLG's Andre Heidkrüger says the company's investment in a material handler is paying off. "We can use the SENNEBOGEN 875 without restriction anywhere at the port – regardless of the cargo being handled. Not only do we work quickly, but also more efficiently and with less costs. That's good enough for us." ■



*The gigantic SENNEBOGEN material handler, weighing 165 tons, travels on 4 axles and provides a 300 ft. (91 m) loading reach.*

# 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.

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



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

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

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



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

Maintenance technicians can complete all routine service procedures safely with easy access to the engine compartment from the ground level.

With transmission engaged, there is an audible travel alarm.

## Optional safety features for special needs:

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





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



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.

Ball valves in the cab and at ground level allow emergency lowering of the cab.

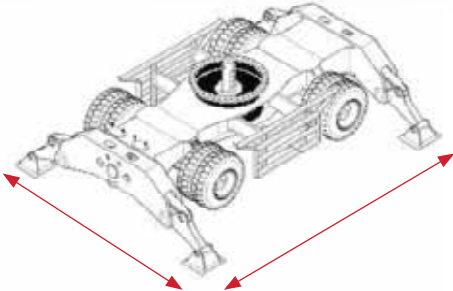
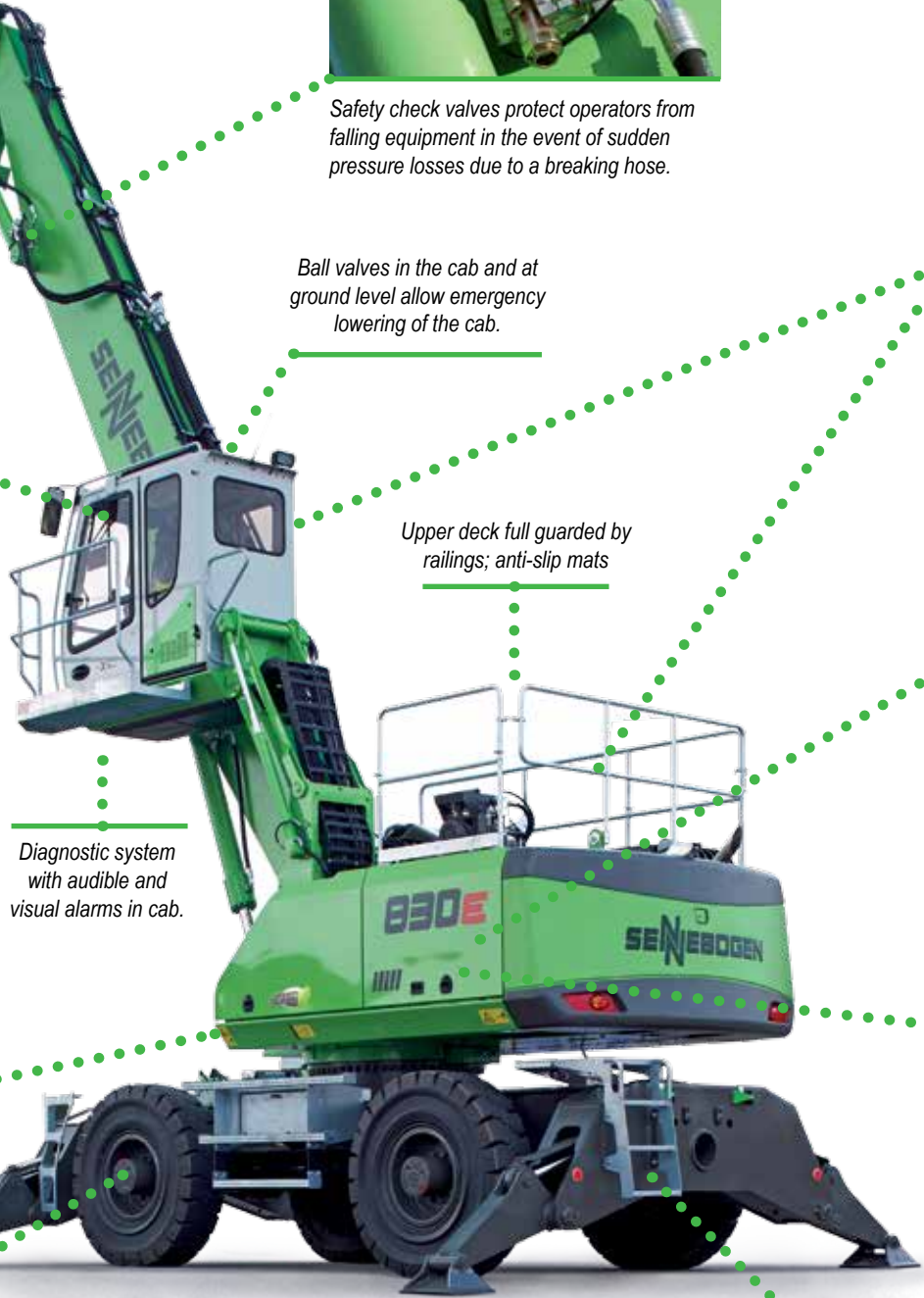
Upper deck full guarded by railings; anti-slip mats

The jump start connection, battery shut-off and main circuit breakers are all easily accessible from the ground.



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.

Diagnostic system with audible and visual alarms in cab.



The footprint of the undercarriage and a central swing point allow equal load limits on all sides through 360°, ensuring a stable lifting stance to minimize tipping hazards.



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



# 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 60 years ago, the family firm now employs over 1,100 people in Germany, Hungary, USA and Asia. These factories have produced more than 45,000 machines in the past 35 years alone. ■



*In the Quality Assurance area, our Quality Team goes over each machine before it leaves the factory.*



## 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 m<sup>2</sup> 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.





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

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



## 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 m<sup>2</sup> 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 m<sup>2</sup> office and production facility is staffed by 200 employees.



# Center of Excellence

SENNEBOGEN's reputation for service excellence continues to grow as trainees graduate from our industry-leading Training Center.



A component room next to the main training bay gives trainees a close look at the service points for key components such as pumps and gear boxes.

SENNEBOGEN customers throughout the Americas are supported by one of the industry's most knowledgeable and accessible service support networks. The strength of the network grows every year, as technicians, parts specialists and sales consultants from coast-to-coast come together at our Training Center near Charlotte, NC.

The Training Center, a dedicated facility at our head office location, is attached to but separate from our parts warehouse and offices. All of our courses are offered at no charge to SENNEBOGEN dealers and customers.

More than 1,000 technicians have now attended the hands-on courses in maintenance and troubleshooting, utilizing our state-of-the-art classrooms and demonstration bay.

Truly a center for developing excellence in service and support, the Training Center has earned accolades for the quality of both the facility and its instructors. Led by Service Manager Jim Westlake, the Center's staff works closely with their counterparts in Germany to keep course materials up-to-date with the latest standards and innovations in SENNEBOGEN equipment. ■

**Dave Harris of Anderson Equipment** appreciates the Center's approach to training. "I like the accessibility you have to a clean machine... sometimes you go into 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. (Our instructor), Roger is experienced with this machine, he's answered real problem-solving issues. If we have a question, or we've had an experience, we can ask him and he knows right where to go for the answer."



The Center's 3-tiered training bay is large enough to bring any SENNEBOGEN unit up to the 870 M indoors, along with numerous demonstration boards and mock-ups.



SENNEBOGEN's Chief Trainer, Roger Hardin, has 41 years of service experience with heavy equipment, including 15 years instructing the next generation of technicians.

Restricting class sizes ensures that every trainee has the chance to ask questions and work closely with factory experts.

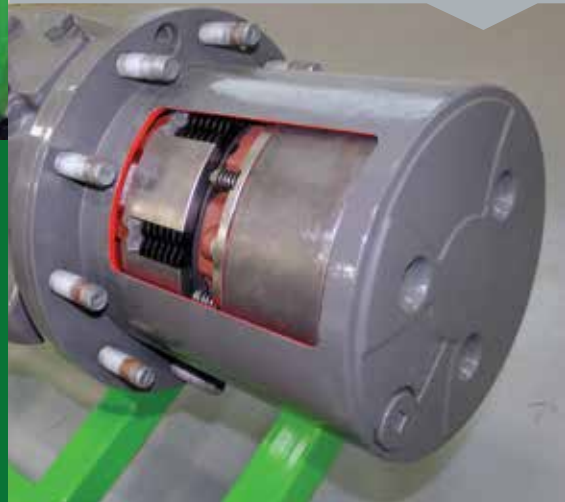






A working mock-up of the operator's station simulates all electrical and hydraulic controls for SENNEBOGEN's maXCab, standardized for all material handler models.

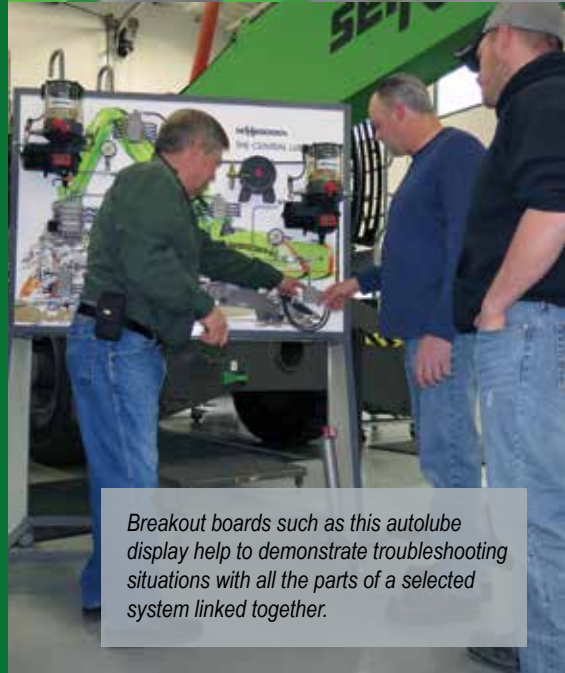
This cutaway model provides a direct view of the internal workings of the axles for SENNEBOGEN wheeled models.



# Factory training at SENNEBOGEN

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

COURSE:	SERVICE LEVEL 1	SERVICE LEVEL 2
TIME:	5 days	5 days
STUDENTS:	Minimum 6 / Maximum 10 per class	Minimum 4 / Maximum 6 per class
REQUIRED:	Basic Technical Knowledge	Completion of Level 1 Class
CONTENT:	<ul style="list-style-type: none"> <li>• Machine Safety, Operation &amp; Functions</li> <li>• Preventive Maintenance</li> <li>• Read &amp; Understand Hydraulic Schematics</li> <li>• Read &amp; Understand Electric Schematics</li> <li>• Basic Trouble Shooting                             <ul style="list-style-type: none"> <li>– Magnet System</li> <li>– Hydraulics</li> <li>– Electrics</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Remote Trouble Shooting</li> <li>• Component Training &amp; Repair</li> <li>• Failure Analysis</li> <li>• In Depth Trouble Shooting                             <ul style="list-style-type: none"> <li>– Magnet System</li> <li>– Hydraulics</li> <li>– Electrics</li> </ul> </li> </ul> <p>The Level 2 classes are smaller and more intensive and build on Level 1.</p>



Breakout boards such as this autolube display help to demonstrate troubleshooting situations with all the parts of a selected system linked together.

For more information: Tel: +1 (704) 347-4910 • Email: [bplummer@sennebogenllc.com](mailto:bplummer@sennebogenllc.com)

# Our Commitment

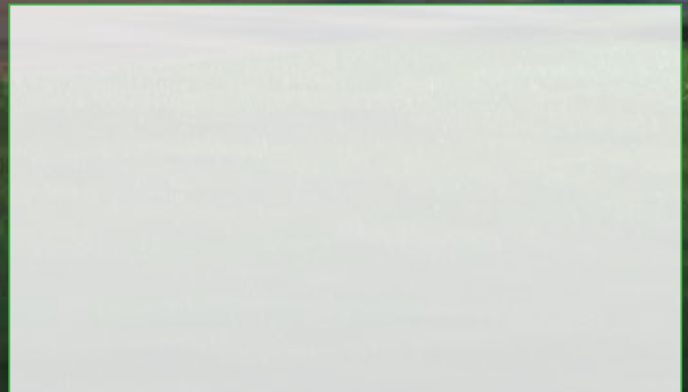
Every year SENNEBOGEN continues to invest in our facilities, staff, inventories and services – because we believe in the strength of our distributors and their customers.



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



*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.*



SENNEBOGEN LLC | 1957 Sennebogen Trail | Stanley | NC | USA | 28164 | +1-704-347-4910

GO FOR GREEN  
[www.sennebogen-na.com](http://www.sennebogen-na.com)

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