

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

**SENNEBOGEN**<sup>®</sup>



**UPTIMES**

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## Cross-Border Operations Leads W. Silver To SENNEBOGEN Again & Again

# PG4



SCRAP/RECYCLING/WASTE **PG6**

SENNEBOGEN 818 does double duty  
for motor-breaking recycling facility



LOGGING/FORESTRY **PG16**

Excellent uptime performance makes  
SENNEBOGEN the obvious selection



PORTS/WATERWAYS **PG22**

Two new hybrid models give  
operators a great choice

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# From Where We Sit



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Sennebogen*

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## Welcome to the 2020 Edition of UPTimes!

### New equipment highlights our new year of UPTimes

With this new edition of our annual UPTimes review, we are struck by the scope of the new products SENNEBOGEN has released in the past year.

Along with the completion of our E-Series updates to our existing machine models, we are proud that we have been able to deliver innovative new products across the entire green line serving all our customer sectors.

SENNEBOGEN's growth has always been rooted in innovation: innovation driven by customer needs. Our management and design teams totally understand that, when you start with a clear focus on the customer and on the application, innovation is the natural result.

Innovation can be a hazardous undertaking: radical departures from proven and trusted technologies can open the door to unforeseen problems and disruption to customer operations. At SENNEBOGEN, we have no interest in "reinventing the wheel". We rely on our well-established expertise in hydraulics, kinematics and load stresses to achieve our goals in product development. The latest advances achieve great results but each is simply an evolutionary adaptation to new and emerging needs that you have identified.

The new track mounted 718 R-HD, for example, extends the dramatic success of our wheeled 718 tree-handler to customers who require added off-road mobility. It follows the pattern of our 800-type material handlers, adapting the same upper carriage, cab and equipment to our crawler platform. The new platform opens a wider range of applications and business opportunities for tree care specialists, with increased soft soil mobility and greater stability on slopes or uneven terrain often found on right-of-way projects.

We further expanded the tree-care lineup with the new 738 M. This model is double the size of the original 718 but with the same basic functionalities and purpose. The 738 M delivers the "game-changing productivity" of the 718 to new markets that require greater load capacity to handle the heavier wood native to their region.

The power pack answers the call for a different kind of mobility. Designed with larger scrap handling and recycling facilities in mind, it allows customers to enjoy the cost-savings of an electrically powered machine, while providing a new level of freedom from the power grid. With its onboard power pack, these material handlers can easily relocate to different stations within the facility under diesel-fueled power. When it arrives at the new location, it can quickly reconnect to clean, cost-efficient electrical power. The power pack also gives the machine the flexibility to complete loading and sorting tasks independently in areas that have no electrical power source within reach. SENNEBOGEN has been engineering electric drive machines for over 30 years. Now, with the power pack option, we offer an ideal combination of our cost-efficient stationary units and versatile mobile machines.

Bigger is not necessarily better but, in the case of the 895 E, big is definitely a step up for customers in large port facilities. The exceptional cost savings achieved by the Green Hybrid energy recovery system is simply amplified as machines get bigger. Our growing fleet of "Hybrid" handlers have proven the value of purpose-built hydraulic machines over old-school rope cranes: operator-friendly, fast cycle times and low operating cost. As more customers have discovered the productivity and savings of our port models, they have inevitably turned to SENNEBOGEN to take on larger loads. We are now delivering these advantages in the "biggest" package to date. The 895 E, available both on tracks or wheels, is officially the world's largest hydraulic material handler. Weighing in at 420 tons, the 895 is capable of reaching over 130 feet (40 m) to move and stack standard sea containers. In another configuration, the 895 E can handle steel coils weighing as much as 50 tons.

While our organization is dedicated to purpose-built machines, our underlying purpose is to solve customer problems the best way we know how. Simplicity, uptime, throughput and cost-efficiency are always foremost in our engineering goals. From the compact 718 R-HD to the giant 895 E, the newest SENNEBOGENs all share these core values.





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# Cross-Border Operations Lead W. Silver To More SENNEBOGEN Scrap Handlers



When John Korey took delivery of a new SENNEBOGEN 825 M scrap handler at ISRI 2019, he knew exactly what he was getting.

The company, W. Silver Recycling, Inc., operates ten scrap facilities in the southwest US and Mexico – and every yard relies on SENNEBOGEN equipment.

“We are the only full service recycler with complete coverage along the US-Mexico border,” Korey says. “We use SENNEBOGEN machines in all our ferrous operations all through our



cross-border footprint. We really needed an international company that could support us on either side of the border. The commonality of design and support we find in SENNEBOGEN allows us the flexibility to move any unit within our operating environment, if we need to.”

Korey’s fleet includes both tracked and wheeled versions of the SENNEBOGEN 825 and 830 models, along with one larger 835 model. While some machines carry a lifting magnet and others have a grapple attached, each one is equipped with a magnet controller. For Korey and his team, it’s all about interchangeability.

#### **Interchangeable equipment and skills**

“We will deploy a piece of equipment wherever it’s required to suit to market conditions,” Korey explains. “Then we have no worries from a support standpoint. Can somebody run it? Do we have parts? Can we get service? If I needed to send a machine from one of our US locations to a Mexican location, we wouldn’t have a second thought about putting it on a truck.

It’s not like we’re moving equipment every month, but several times throughout the year, we’ll move machines to mirror local demand.” As well as meeting production demands, this approach also allows better balancing of W. Silver Recycling’s machine utilization, so units aren’t left idle at one site while others are being overworked elsewhere.

Korey notes that, with the way his fleet is built, he has flexibility with both his equipment and his people. “There have been times where an operator has been out for an extended period and we’ll just fill in with one of our other operators. The instant they’re on the ground, they’re off and running.”

“It’s the same with the serviceability of these machines. I can take any of our maintenance guys to any of our facilities, and he’s up to speed and functioning at a high level the minute he has boots on the dirt.”

#### **A proven model**

Korey says W. Silver Recycling’s fleet development follows the “Southwest 737” model, reflecting Southwest Airlines’ strategic decision to build on the latest aircraft from Boeing

Recycling’s regional centers to support the fleet. With SENNEBOGEN dealers located on both sides of the border, every W. Silver Recycling facility has access to nearby factory support.

#### **Shared experience**

Because they all work on the same machines, their maintenance crews at different facilities are able to support each other and share their experience with the machines. Some techs have taken advantage of the free training programs offered to them at SENNEBOGEN’s factory Training Center in Stanley, NC. They, in turn, can pass along what they’ve learned to their co-workers in each yard.

Along with the familiarity of their SENNEBOGEN machines, the technicians at W. Silver Recycling also appreciate the simplicity of servicing them. “They’re elegantly designed from a maintenance standpoint,” according to Korey. “They aren’t overly dependent on computers; you don’t need a computer scientist to get into them. They are very robust machines and they don’t use a lot of proprietary parts.



to maintain the highest level of commonality in equipment, parts and skills.

W. Silver Recycling keeps stocks of common parts in strategic locations throughout its own network, and SENNEBOGEN has also placed some of its key components within W. Silver

Some other brands, if you don’t have their parts and their software, you’re dead in the water. With Rexroth and Bosch hydraulics, Cummins engines, the availability of these parts and their dealers in our operating territories has really played into our decisions to stay with SENNEBOGEN.” ■





# Multi-tasking SENNEBOGEN 818 does double duty for new motor-breaking facility at John Zubick Limited

After 70 years in the scrap metals business, John Zubick Limited recently continued its ongoing quest for diversification with a new line of non-ferrous processing.

The family firm, now in its third generation, has a history of exploring new ideas and business opportunities, and for investing in new equipment to put their ideas into action. After bringing a Bonfiglioli car shredder into the operation a few years ago, brothers George and Bruce Zubick moved this year to commission North America's first Bano vertical mill to anchor a 10,000 sq. ft. electric motor-breaking plant. But to feed the process, the Zubicks elected to stick with a familiar name.

Housed in a new enclosed structure on the Zubick's property, the facility is supported by the yard's latest addition to an extensive fleet of SENNEBOGEN purpose-built scrap handlers.

Bruce Zubick recalls, "The decision to go with SENNEBOGEN was determined before the processing equipment arrived. We knew what the machinery was and what was needed to feed it. We looked at other equipment and other brands, but the 818 M fit the bill."

## A history "outside the box"

Even the Zubick's experience with SENNEBOGEN is marked by "firsts." When the manufacturer originally introduced its 850 model, the first one sold in North America came to the Zubick yard. "We bought the 850 off the blueprints," says Bruce. "The decision was based on our experience with our SENNEBOGEN 835." Later, the brothers installed the first remote-operated SENNEBOGEN to feed their new Vezzani gravity shear – also a first in Canada.

"We've never been afraid to look outside the box. Being open to new ways is part of doing due diligence," continues Bruce. "We do have a high trust in SENNEBOGEN's reliability and support. That first 850 was the largest in the business at the time. We've added



*Equipping the 818 with a mag-grab allows complete versatility to switch between serving the two lines from minute to minute.*

another since then. Now we've added a 'baby brother' for this new application."

## "Purpose-built" facility

The new non-ferrous operation is housed in its own 150 ft. x 60 ft. (45.7 m x 18 m) "purpose-built" building, 35 ft. (10.6 m) high at the peak and 30 ft. (9 m) at the walls. The facility runs 2 lines: one to strip and cut wire; the other running the Bano mill and Steinert separators to process "meatballs" extracted from the nearby shredder operation into ferrous and non-ferrous streams. The motors are largely salvaged from appliances that Zubick processes onsite, as well as units shipped to their operation by other yards in the region.

The 818 M feeds the two parallel lines from one position at the front of the process, using the mag-grab to move loads of shred magnetically from trucks into the mill, then switching to the grapple mode to feed bundles of wire into the cutter from stockpiles on the floor. At 48,060 lbs. (21,800 kg), the 818 is close to one-third the size of their

850s, but it provides high reach and lift capacity required to match the processing speed and volume of the mill.

## Right-sized for the job

The operation is overseen by Bruce's son, Ben Zubick. "SENNEBOGEN's elevating cab lets the operator see right into the trucks and into the hopper. He has to stagger the material as it's loaded into the hopper, so the visibility allows more efficient handling. The 818's compact swing radius is ideal for an indoor operation like this – there's just 1.5" (38 mm) of counterweight out the back! On most machines, the counterweight overhangs the pads by a foot or two."

Ben notes that the size and operating range of the 818 were integral to the design of the new facility. "When you're outside the sky's the limit for equipment," he says. "But inside, you have to consider the area around you, the height of the roof, the ceiling fixtures like ductwork, and electrical. We could have built an arena to house all this equipment; but it's not an arena, it's a reasonably sized, efficient facility with exactly the right piece of equipment from SENNEBOGEN." ■

# SENNEBOGEN material handlers mark milestones in growth for Allied Salvage Metals



For four generations, the Weinstein family has been steadily expanding its capabilities to provide recycling services to the lower mainland of British Columbia. Founded by Isadore Weinstein in 1952, Allied Salvage Metals has evolved through several changes in location and equipment. Today, with facilities operating in the cities of Richmond and Squamish, Isadore's great-grandson Ian sees his growing fleet of SENNEBOGEN material handlers as an important turning point in that history.

"Our latest SENNEBOGEN machine is the first time we traded in equipment instead of adding to the fleet," Ian Weinstein says. He has been involved in the family business "most of



my life" and now serves as Director of Operations alongside his father, Arthur. Allied has occupied its current Richmond site location since 1991, starting with a small 1.25 acre property, later doubling it with the purchase of an adjacent property.

## Growing capabilities

The younger Weinstein recalls that the yard's material handling needs were given to an old excavator, which was fitted with a boom & stick "that it could hardly handle." Later, they added a log loader, modified to move scrap. He notes that there were some purpose-built material handlers on the market at the time, but with no dealers

or parts inventories stocked in the region, service support proved to be a challenge.

Allied continued to grow steadily through the years. "We have a great crew that makes it happen; to keep the material moving." The increasing volumes processed and shipped through the yard drove expansion of the equipment fleet.

## Moving up to "purpose-built"

Finally, the Weinsteins were able to add their first SENNEBOGEN purpose-built material handler in 2007. The next year, they acquired a Sierra 500 baler/shear. "That's when we, as a company, really started to grow in ferrous production," says Ian Weinstein. "We were geared up for growth and our

new equipment made it possible. The new SENNEBOGEN gave us more speed, more capacity and higher piles in our tight surroundings and the ability to better organize our process."

The Allied material handling fleet has now grown to five SENNEBOGEN machines, including one unit working at the yard in Squamish. The

workhorses in Allied ferrous operation are the company's four 835 M rubber-tired models.

The Richmond yard also runs a smaller 821 M SENNEBOGEN, primarily for loading non-ferrous material and because of its convenient transport size, it's easy to transport to offsite locations.

## Higher capacity, less downtime

With the 835's combination of mobility, load capacity and fast cycle times, Allied was also able to add another shear to its process: a Sierra T900 shear that can churn out as much as 26 tph! Still operating on a site with

just 2 1/2 acres to work in, Allied is moving 3200 to 4000 tons of ferrous per month, plus another 500,000 lbs. of non-ferrous.

In the 12 years since Allied first began its move to a SENNEBOGEN fleet, Weinstein has already retired and replaced two of its original green machines. Of the five units now in service, the oldest is approaching 25,000 hours service and another has over 15,000 hours. "We have always bought machines to bring in additional capacity", Weinstein explains. "As you can imagine, with our high need for production, downtime can be a killer. These days, replacing older equipment with new pays us back in throughput with reduced downtime and with less maintenance cost."

## The strength of family relationships

Ian Weinstein credits the SENNEBOGEN support team with keeping his fleet productive. "Our dealer, Great West Equipment, has done a great job looking after us, being there for us. They are a dependable parts supplier, and get strong back-up from SENNEBOGEN in North Carolina. They have offered us a great amount of training onsite and we are planning to have our own technicians attend free sessions at the SENNEBOGEN Training Center in Stanley."

The strong connection with Great West reflects the family values at Allied. SENNEBOGEN, too, is one of today's few family-owned OEMs. "Personal connections are important to us. Personal relationships make the business side easier. Whether it is our suppliers or the brokers I sell to, personal relationships are important to solve problems."

"As a 10-year customer, we have a great relationship with SENNEBOGEN. We enjoy meeting them at events like ISRI. SENNEBOGEN and Great West take our problems seriously; they get on top of it. So I get to work with the people I enjoy doing business with." ■

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# Homework pays big dividends

Lake Pleasant Recycling and Demolition (LPRD), located in Michigan's beautiful Irish Hills, 2.5 hours southwest of Detroit, has claimed its stake as the "go-to" recycling yard in the region for the past 15 years. Determination, hard work, persistence and a keen eye for niche opportunities, LPRD's founder and President Paul Cunningham has steadily guided the company's growth, all starting from the back of his pickup.

On a 15 acre site there are multiple trucks and trailers, open top cans, shredders, shears, wheel loaders, scales and material handlers. Paul knows heavy equipment. Starting as a teenager, building a landscaping and snowplowing business, then an aggregate business, Paul is now a passionate recycler.



But an operation of LPRD's size has long since grown beyond a one man show. Paul's son Hunter Cunningham has become a key part of LPRD, as foreman and head equipment operator. Hunter has been hanging out with his Dad at the yard for three-quarters of his life. Hunter is "equipment smart" well beyond his 22 years of age and Paul is laser focused on improving the company's productivity, cost control and customer service.

LPRD's niche is prepping and pre-processing expired propane tanks that

range in size from the small 20 lb. BBQ variety clear through to semi-trailer shipping tanks. LPRD's expired propane tank customer list reads like the who's who of propane distributors throughout the mid-west.

"We've seen our business ramp up and we want to continue growing the expired propane tank business," states Paul. "It's not for everybody. It takes a lot of expertise but we're really good at it and we've pretty well seen and done it all in the tank business."

Paul, Hunter and the staff were having problems keeping up with LPRD's growth, identifying their two – 2012 material handlers with 5,700 and 7,500 hours as the culprits. Poor reliability, no parts and

extended service downtime was beating the business up.

Paul and Hunter set out to find the "BEST FIT" material handler out there that suited LPRD's operation. BEST FIT to Paul consisted of many factors in his search: Purchase price was first, followed by safety, productivity, operating costs, reliability, durability, service and parts availability.

Paul's search for the BEST FIT led him to Alta Equipment, a multi-line full service dealer that represented SENNEBOGEN material handlers. Alta had many

satisfied SENNEBOGEN customers already operating in Michigan that were eager to share their positive experiences with their SENNEBOGEN material handlers. Alta also had a full support staff, dedicated SENNEBOGEN product specialists and a comprehensive SENNEBOGEN parts inventory with field service mechanics who were trained specifically on the SENNEBOGEN equipment. And Alta was armed with a fleet of service trucks to get onsite fast to get the job done.

"Once Alta came to terms with our budget, our deal fell into place. SENNEBOGEN was clearly the equipment frontrunner and most qualified to meet my BEST FIT equipment criteria," states Paul.

Six weeks later, the first of the two SENNEBOGEN 825 M E-Series units arrived at LPRD. The second unit was onsite eight weeks later. "Our yard is really spread out and we need rapid mobility, maneuverability and quick set up. Whether we are at the scale, the shredder, loading or unloading trucks or anywhere in the yard, we need to get there and get there quickly with minimal setup time and get to work. The rubber tired all-wheel drive and steerable axles let us travel rapidly."

Paul has worked to quantify productivity and has seen improvements of 25% since bringing the two SENNEBOGENs online in the yard. "These units are easy to operate, reliable and are quiet and safe both inside and outside the cab. My operators only have praise for the SENNEBOGENs. As well, I have tracked a significant reduction in our fuel costs. My operating costs are way down and my productivity is way up. As an owner of a yard, what more could I ask for," states Paul.

The two SENNEBOGENs have been in service and the LPRD team of Paul, Hunter and the rest of the staff all agree they made the right decision. "No buyer's remorse here," states Paul. "We did our homework, we built the relationship and without doubt, we bought the best material handlers out there. Bring on the expired propane tanks by the truckload guys, we're ready to handle the growth with the SENNEBOGENs in our fleet."

Paul's final words to those in the market looking to buy a material handler:

"SENNEBOGEN - Try it, you'll buy it!" ■



# Recycling specialist OZO is “thinking green” in every way with electric drive SENNEBOGEN 818



The Czech recycling company OZO Ostrava s.r.o., recently commissioned a new line for processing pre-pressed plastic bales. At the heart of the line is a SENNEBOGEN 818 M powered by an eGreen electric drive.

Delivered in September 2018, the new 818 “green machine” fits right in with the other equipment on OZO’s 22 acre (9-hectare) premises. With all the green machines in view, you could think you had arrived at one of SENNEBOGEN’s production facilities. There is actually only one SENNEBOGEN material handler on

the site, but “thinking green” goes all the way through the newly created processes.

“As a regional recycler, we take responsibility for our position in the community and set a good example,” says Vladimíra Karasová, PR Manager at OZO. He explains that the company’s decision to acquire an electrically powered material handler was driven in part by the machine’s low-emission operation.

“In the long term, we also wanted to sustainably increase our production capacity,” Karasová continues.

“That is why we decided to build a completely new line for RDF (Refuse Derived Fuel) processing. For us, however, sustainability is not just a popular term to attract economic success. It’s our reason for being.”

RDF production is one of the strategies being developed by the Czech Republic to meet its goal of eliminating the use of landfills by 2024. The nation has the potential to produce approximately 1-1.5 million tonnes of RDF per year, potentially enough to replace coal in the country’s energy mix.

A tight rein on processing costs is essential for the program’s success. The 818 contributes to the effort, not only with its efficient handling capacity and speed, but with the low operating cost of the eGreen system when compared to diesel-fueled models. The material handler keeps the RDF plant loaded with pre-sorted thermoplastic waste from its regional sorting lines, moving a fresh load every 30 seconds. The 818’s elevating cab is another important feature in the line’s efficiency. It allows the operator to quickly adjust to different viewing heights for optimum alignment with the hopper he is filling or to pick small parts from the floor level. ■



*The 818 M electrically powered material handler feeding the RDF plant.*

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## Did you know...



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A large green SENNEBOGEN 738 M tree care handler is shown in a forest, reaching high into a tall tree. The machine is positioned on a slope, and its long boom is extended upwards. The background is filled with dense evergreen trees under a clear blue sky. The machine has "SENNEBOGEN" and "738 M" visible on its side.

# SENNEBOGEN Up-Sizes Its Tree Care Line With The New 738 M Purpose-Built Handler

A great idea just got bigger! SENNEBOGEN has been making a big impact in the arboriculture industry with its remarkable 718 M purpose-built tree care handler. Described as a “game-changer” by tree care specialists, the 718 is reported by users to achieve up to 10-fold increases in production in applications from thinning urban woodlots to roadside maintenance.

Now, SENNEBOGEN introduces the 738 M. It is fitted with same type of equipment but sized to reach further and to handle larger trees.

Weighing in over 95,000 lb. (43,500 kg), the new SENNEBOGEN 738 M is twice the size of the 718 and extends its reach to 75 ft. (23 m) vs the 43 ft. (13 m) range of the 718. Still, according to operator Rob Frost, the 738 handles like its smaller predecessor. At a recent

field trial, Frost said, “The 738 gives you the same cycle times, the same fluidity; it’s quick and smooth. You can move at the same pace as the 718, while you’re moving much bigger wood.”

#### **Bigger wood in more jobsites**

SENNEBOGEN says the 738’s larger size effectively expands the practical range for its purpose-built tree-care machines. While it allows crews in urban eastern areas to take on more





and larger projects, the 738 is also sized right for heavier forested areas in Pacific and mountain regions. Intended specifically for arborists, rather than logging production, the 738 is also recommended for deeper off-road projects such as right-of-way maintenance for utility

companies or for DOT throughways and rail lines.

Frost reports that, while he takes on 90 ft. (27 m) trees with his 718, he can handle 125 ft. (38 m) trees up to 4 ft. (1.2 m) diameter with the 738 or even larger depending on the species.

*Being able to dismantle trees up to 125 ft. (38 m) make the 738 a true game-changer.*

Using a .47 yard grapple saw at the demonstration site, he took down an 85 ft. (26 m) spruce in just 2 pieces, then quickly cut and stacked it into four 20 ft. (6 m) logs.

**Fast, efficient and versatile**

He estimates that the 738 works fast enough to cut in the range of 100 to 150 trees per day, with no additional crew onsite. With its long reach, the machine can clear large swaths from

one stance then, running on rubber tires at up to 13 - 15 mph (21 - 24 km/h), it can easily move up the road to clear the next spot.

Developed on the same platform as SENNEBOGEN's trailer-pulling 830 M-T log handler, the 738 M offers powerful off-road mobility driven by a transmission on both axles. The machine is powered by a 225 HP (168 kW) Cummins 6.7 Tier 4F engine. The operator gets a clear view of the worksite and into the cutting zone from the elevating and tilting Maxcab.

The 738 shows off even greater single-handed versatility with its auxiliary attachment pump, provided to power heavy hydraulic attachments such as a mower and mulcher. The total package offers exceptional capacity for maintaining embankments, with the ability to stand back safely while it works down a 25 ft. (7.6 m) slope. ■



## SENNEBOGEN heads off-road with new crawler model

Building on the tree care industry's reception of the 718 M handler, SENNEBOGEN has introduced the 718 R-HD, a track mounted model of the same purpose-built machine.

The 718 R-HD delivers all the popular features of the 718 M, trading in the rubber tired undercarriage for crawler tracks. The track mount opens a wider range of applications and business opportunities for tree care specialists, with increased soft soil mobility and greater stability on slopes or uneven terrain.

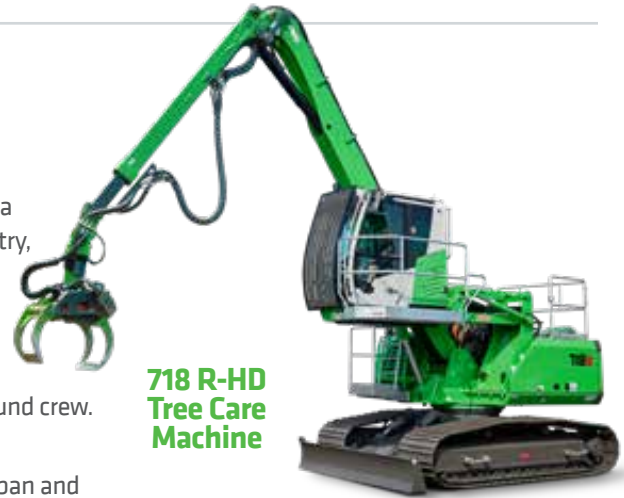
Both models feature a boom and stick with a 43 ft. (13 m) reach, fitted with a rotating hydraulic grapple saw. Operators are able to grip, cut, trim, sort and stack tree limbs from the safety of the machine's elevating Maxcab, which can rise to an eye-level height of 18 ft. (5.5 m) to afford a clear view of the work area and the surrounding jobsite. The cab can also tilt back 30° to allow operators a comfortable up-look when working with trees that could be up to 70 ft. (21.3 m) tall.

Current owners call the 718 "a game-changer" in the industry, achieving production rates up to 10 times greater than traditional methods, while dramatically increasing safety for operators and ground crew.

**Production and versatility**

While the 718 M excels at urban and roadside tree care, and can quickly transport itself between jobsites, the 718 R-HD turns its focus to off-road applications such as right-of-way maintenance for utility companies, or land clearing for construction developments. The compact size of the 718 R-HD, weighing under 44,000 lbs. (19,958 kg), is convenient for trailering to jobsites, with no highway waivers required.

With its cutting and handling capability, the 718 eliminates tree climbing from the job as well as any need to rig ropes to the trees or to haul cut limbs to a sorting area. There's no concern about branches or equipment falling on crew members



**718 R-HD Tree Care Machine**

below. With a 3,700 lbs. (1,700 kg) lifting capacity at maximum horizontal reach, 43 ft. (13 m) and 12,000 lbs. (5,443 kg) at maximum vertical reach, 48 ft. (14.6 m), the 718 can cut and move the wood in larger sizes as well, allowing faster removal. The grapple saw can even, if wanted, cut branches and feed them into a chipper in a single motion.

The SENNEBOGEN 718 R-HD has an auxiliary hydraulic piston pump, independent of the main hydraulics, to provide dedicated power to other attachments with high oil flow demand. Operators can switch out the grapple saw and run a hydraulic mower or mulcher head at maximum efficiency. ■

# KutTech brings “Old School” knowledge to next generation of tree care technology with SENNEBOGEN 718



Rob Frost learned his trade literally “from the ground up”, but now he feels that he is on the leading edge of tree care technology.

Frost’s business, KutTech LLC, is based in the greater Boston area and now serves an expanding region with specialized services in urban forestry and land clearing. Frost’s grandfather led the family into the tree care industry in 1969, following a stint in the Navy and his father followed suit through the 1980s and ‘90s. Young Rob Frost started alongside his elders before he was in his teens. At that time, the Frosts were operating with dump trucks, bucket trucks and cranes, climbing and felling trees providing traditional tree care services for homeowners and businesses.

“I literally started at the bottom,” Frost recalls. “I was dragging branches and learning how to climb when I was about 10 years old. Pretty soon, I was running bucket trucks and cranes and the bigger all-terrain cranes and land clearing equipment. I came up while a lot of the old-school guys were still around. I saw how hard they had to work. As the newer equipment came around, we were able to appreciate it more.”

## A “purpose-built” future

More recently, another tree care business recruited Frost to operate their newest piece of equipment: a purpose-built SENNEBOGEN 718 tree handler. At that moment, Frost saw his future. “Previously, I was doing a lot of land-clearing and right-of-way work. But I found that I like doing the roadside work and that’s where the 718 came in.” Frost recently purchased a 718 of his own and KutTech has been taking on a steady stream of projects ever since.

The 718 is a 21-ton rubber-tired machine with a high-rise Maxcab operator station, equipped with a hydraulic tree saw and grapple attached to its 43 ft. (13 m) telescoping boom. With a lifting capacity of up to 3,700 lbs. (1,700 kg), its powerful hydraulics are fine-tuned for delicate tree surgery while its elevated cab affords the operator an unobstructed view into the work zone. The agility of the 718 system makes cuts fast and efficient, while its grapple serves to hold branches, clear the cut wood and stack logs or brush – all

*Once the tree is dismantled, Rob is able to cut it up and get it ready to stack.*

while keeping operators a safe distance from any hazard on the job.

## Tree-handling specialist

“The first time I saw a 718 working, I could see how it’s so good at its job with the right operator and in the right conditions,” Frost says. “I’m mostly focused on subcontracting. I can meet the needs that are outside the traditional work for most tree care companies. The machine is a good investment for anyone who does heavy projects on a regular basis; but if you don’t, I’m here to take it on for you. The guys that only see one or two

*From the safety of the cab, Rob can stockpile the wood.*

of these jobs in a year can still say yes to whatever job comes along – that’s when they call KutTech to come out and get it done. It allows them to be that full-service supplier to their customers that they can count on.”

## Speed + Versatility = Production

According to Frost, it’s the speed of the 718 in a full range of tree care tasks that lets the machine pay its way for both KutTech and his customers. “That’s my favorite part – that’s where the production comes into play. You can be the best operator in the world, but if that machine isn’t engineered and built properly, you’re not going to be getting anywhere.” The time-savings Frost can achieve with the





718 can vary widely, depending on the application, but he estimates that it will complete projects at least five times faster, on average, compared to traditional crews and equipment. On a specific project, the 718 will outpace the old ways by ten times or even twelve times the speed. "When my father saw how the 718 works, he said, 'You'll be finishing jobs in a couple hours that used to take me two days!'"

Frost notes that the 718's fast cycle times are rooted in the engineering of SENNEBOGEN's world-leading line of

the brush, feed it to a chipper or load it into trucks, all without leaving the cab.

#### Out of harm's way

Frost has refined his skills with the 718 to a point that even SENNEBOGEN calls on him periodically to run the machine at their demonstration events. There, the SENNEBOGEN team is eager to highlight the safety advantages of the 718. It's a feature that Frost appreciates every day on the job.

"People often get hurt in this job because of mistakes made by

He says the new enlarged Maxcab is a good step forward too. "They made some great improvements to the E-Series cab, with more space and comfort features. I'm a bigger guy, 6'1", and I have plenty of legroom. I get a comfortable suspension chair to work in all day, Bluetooth and AM/FM radio. This is my office space and it works."

#### Unique work with a unique machine

While Frost is impressed with the 718's capabilities, he still values the



*Working close to power lines is not an issue for Rob. The reach and adaptability of his 718 allows him to work around power lines and control the tree limbs while being cut.*

material handlers. "It's made for lifting and loading, from ground to sky or sky to ground, whether it's unloading barges or filling rail cars. That's where it gets its speed. It's the same basic motions when it's dismantling trees, putting branches into piles or loading logs and brush."

That versatility of the 718 is also an important part the machine's effectiveness, he says. "You can get a certain piece of equipment that will cut the trees, but can't move them; or get one that can load the wood but not cut it. The 718 is good on both ends." With one piece of equipment, you can cut and place the wood then, once it's on the ground, you can stack it or process it out: cut the logs to size, pile

inexperienced and even experienced guys who put themselves in bad situations, sometimes without even realizing it. If you can keep those guys out of harm's way, that's the most important part. The less people around, the safer it is. With the 718, I can do so much with the machine myself, I'm not being distracted by what the guy beside me might be doing, whether he's in a blind spot, or under the tree where I can't see him. I'm just thinking about what the machine's doing and what the tree's doing. The cab's camera system gives me almost a 360° view. SENNEBOGEN definitely did the right thing putting those cameras on as standard for the sides and back. It does help out."

knowledge and skills he developed as a third-generation tree care professional.

"I've known good operators that have run heavy equipment for 30 years, but they want no part of this job," he laughs. "You need the tree handling background. Working with trees is very unique. Every tree is different and its branches are different throughout the tree. You need to know what this tree is going to do, how it's going to turn, while you deal with different variables, different species and different weights; high voltage power lines, and operating over houses or over traffic. This 718 is a very special machine in the right hands. But your knowledge of trees is equally important." ■



# DEMO DAYS

## SEEING IS BELIEVING

### Tree-handler demonstrations are attracting arborists across North America

From roadside maintenance in New England to the wildfire zones of California, SENNEBOGEN's tree care handlers have been making their mark on America's arboriculture industry. Dealers are working hard to keep up with the interest of tree care specialists who want to know if the SENNEBOGEN 718 and 738 really are the "game-changer" they've been looking for.

SENNEBOGEN's specialist in tree care applications, has been managing a busy schedule of demonstration days while coordinating with SENNEBOGEN dealers to give arborists a first-hand look at the machines.

"The fact is, nobody has bought a tree care handler without seeing it work," he says. "First, they see it at a demo or at a customer's jobsite. Then they buy."

#### Questions & answers

SENNEBOGEN explains that, because these machines are so new, there are few operators who have the experience to demonstrate their full capabilities. As a result, Rob Frost, the owner of KutTech tree service in Massachusetts, has been filling in as SENNEBOGEN's lead demo operator. "Photos and videos don't really get across how substantial a piece of equipment this is. You have to be there to see what 50,000 lbs. really looks. It's a whole different class of machine from the bucket trucks and knuckleboom cranes that the industry is accustomed to."

#### A unique skill set

The SENNEBOGEN tree care specialist is confident that, with a growing population of machines in the field, SENNEBOGEN can bring more qualified operators on board.

The 718 is a 21-ton rubber-tired machine equipped with a hydraulic tree saw and grapple attached to its 43 ft. (13 m) telescoping boom. With a lifting capacity of up to 3,700 lbs. (1,700 kg), its powerful hydraulics are fine-tuned for delicate tree surgery.



*The 718 R-HD is mounted on a crawler undercarriage and is perfectly suited to take on right-of-way (ROW) and landclearing projects on uneven ground and hillsides.*

"It takes a unique skill set; there is a learning curve. But experienced tree people pick it up fairly quickly - guys who have been around trees their whole lives and have been in and out of different kinds of equipment. We had a young fellow in California who had been working with trees since he was 16. He got into the 718 and, on his second day, took down about 70 trees."



## Changing the business model

SENNEBOGEN has also been working with dealers and contractors to help answer their questions on the business side of the buying decision: questions of how to market their new service and how to quote projects as everyone understands that this will change their business model.

DOTs, municipalities and parks departments in the region and to the

contractors who serve them, are the dealers' target audiences. Budgets are tight for tree care in the public sector and the 718 can be a powerful force multiplier. The 718 could come and completely alleviate a city's backlog and overtime issues while it eliminates fatigue and safety concerns.

The productivity of the purpose-built tree handlers also gives arborists a new path to profitability. During a recent

conversation with a contractor who had acquired a 718, he told SENNEBOGEN that he expects to have his new tree care handler paid in just three to four months. According to his calculations, if he works the machine three days a month, his payment is made. He received his machine in October and he was already booked right up into January! ■



## Tree Care Handler Is A Crowd-Pleaser

Abler Tree Company founder, Shawn Abler has been climbing and cutting trees for almost his entire life. But it's only lately that, when he and his brother Travis go to work, they draw a crowd!

"We usually have people coming to watch us work every day," he claims. And he understands the attraction. "When you see how we cut a tree down and how fast we do it and how we swing the wood right into the chipper, it's impressive."

It's the 718 that brings out the crowds and, according to Shawn, the crowds are good for business. "People are videotaping, they're putting our name out there. We had one customer a couple weeks ago who was so impressed that he kept adding more work for us to do. He was amazed!"

### A specialist tool for arborists

The SENNEBOGEN 718 M is a 47,180 lb (21,400 kg) purpose-built tree care machine equipped with a hydraulic tree

saw and grapple attached to its 43 ft. (13 m) telescoping boom. Its high-rise and tilting Maxcab operator station elevates the operator for an unobstructed view into the work zone. With a lifting capacity of up to 3,700 lbs. (1,700 kg), its powerful hydraulics are fine-tuned for delicate tree surgery. Its grapple can grip branches as cuts are made, then clear away the cut limbs, stack logs or brush and feed the material into a chipper or grinder.

Shawn Abler says he's happy to let the 718 take over the heavy lifting. "We've been doing this a long time and have done it all by hand. Now we're at a point where the work takes a toll on the body. The 718 lets us work all day then go home without being tired. We'll continue doing the same work we've always done. Just the two of us can do it all but we won't be climbing anymore."

"You still have to know what you're doing. If you can't run a chain saw, then

forget this machine because you're still not going to know what to cut; how it's going to fall, where the pinch points are, the effect of the wind."

### Land clearing, roadsides, storm damage

The Ablers' customers are primarily construction companies and municipalities. "Our jobs typically are clearing jobs but we've done roadside work as well."

"There's a lot of storm work, too, pulling trees off of houses. Summer and winter. This machine is incredible at doing that. We used to climb up there on the roof with a chain saw, pick it and cut it four or five times to pull it off the house. With the 718, you can get right up in the cab and see over the house. You see what's going on, make your cuts from the cab and you can have the tree off the house in an hour."

### A game-changer

As the watching crowds testify, the 718 is proving to be its own best advertising for Abler Tree. As Shawn Abler says, "Just getting out into the neighborhood, people know we have it and, as word gets out, they are coming to us for the machine. We take jobs anywhere in Wisconsin. We had a call from another tree guy three hours away. I told him it's a game-changer. With all the equipment we have in the yard, this is the one that we least have to work on. You start it in the morning, go cut trees down then put it away. The next day, you do it all over again and you know it's going to work for you, just like it did the day before." ■



*Working safely around electrical and telephone wires and even close to the house is not a problem for Shawn Abler.*



# UPTIME PERFORMANCE OF 830 M-T LEAVES STELLA-JONES WITH “NO OTHER OPTION” FOR POLE-HANDLING YARD



When the 830 M-T log handler reached the end of its six year lease term with 22,000 service hours, Stella-Jones Inc.'s, Plant Manager Darrin Vigue did his due diligence to choose its replacement. But in the end, Vigue returned to the machine that had served him so well for the previous six years.

“We considered other makes, including two of the industry’s top OEMs,” Vigue says. “But there were really no other options for us. The SENNEBOGEN is a good machine; everyone is happy with it.”

The facility that Vigue manages is one of several wood utility pole treatment plants that Stella-Jones operates in British Columbia. Western Red Cedar and Douglas Fir poles are first trimmed and debarked at another facility, then distributed to various yards such as Galloway for further treatment.

## **Purpose-built for log yards**

Reliable uptime is crucial to Vigue’s operation. He keeps the 830 M-T running 16-hours a day to handle the yard’s full range of loading, stacking and picking

duties. This new unit features a beefed-up stick with a live heel to handle poles up to 115 ft. (35 m). Such long poles are straight stacked but, more typically, the poles arriving by truck and rail are unloaded and square-piled in 25 ft. (7.6 m) blocks to allow maximum air flow for natural seasoning.



Vigue explains, “Our only back-up is an old Prentice log handler. The accessibility of service and parts from Great West Equipment was a critical factor in our decision to stick with SENNEBOGEN. If there is a problem, we can count on Great West to be onsite within the hour.”

The Galloway yard is a 36-acre gravel-based site, plus 10 acres of leased Crown land. Vigue describes it

as a long narrow yard, so the wheeled 830 machine is well-suited to the long travel cycles that are sometimes needed to haul trailers carrying 20,000 - 30,000 lb. (9,070 - 13,600 kg) loads.

## **Damage control**

As Vigue notes, “Loading these poles is a delicate operation; we have to take care to avoid scarring or damaging the wood. Our operators are more than happy with the precision and responsiveness of the SENNEBOGEN hydraulics. Pole butts and tops are usually mixed on the trucks coming in, so we usually take a maximum of five logs in a bite. The rotating head and live heel on the stick lets us alternate their orientation on each layer in the stack, without having to change position as we’re unloading.”

The 91,300 lb (41,413 kg) 830 M-T comes standard with a hydraulic elevating cab that can rise up to 20’ (6 m) above ground level. Powered by a 225 HP (168 kW) Cummins diesel engine, the 4-wheel-drive system features dual transfer transmissions providing direct drive to each axle, achieving the highest drawbar pull in its weight class. ■





Lift More • Stack Higher • Cycle Faster



## 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.

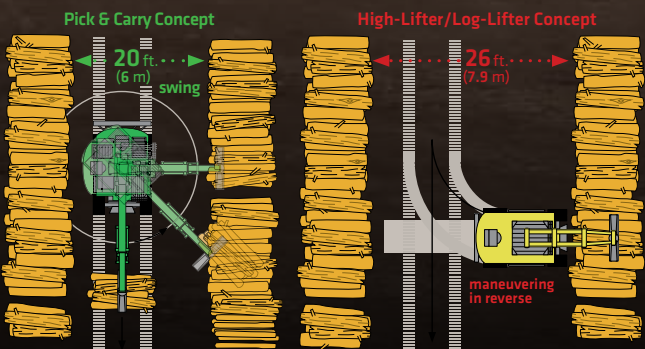
The driving and transport machine is especially designed for free-standing use with safe working loads up to a maximum of 20 t. ■



SENNEBOGEN 735 M-HD pick & carry machine in action

**25%\*** Less Space Needed Between Stacking Rows

**50%\*** Higher Stacking



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.

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

\* Percentages will vary depending upon conditions.

LOGGING/FORESTRY



# Mountainside Unloading earns rare position servicing Louisiana-Pacific mill with SENNEBOGEN log handlers

Insiders recognize that Larry McKay is a rare species in the lumber processing industry.

As the owner of Mountainside Unloading Ltd., he is under contract to operate the Louisiana-Pacific woodyard in Swan River, MB. "I am pretty blessed that they've given us this good job," he admits. "L-P usually likes to run its own yards, with its own equipment. But we're providing a good service to them and they seem to like us."

Mountainside Unloading opened for business in 2006, across the road from L-P's OSB mill 300 miles (500 km) northwest of Winnipeg. At that time, McKay took over the yard from the original owners who founded it. L-P has diversified Swan River's product range since then including OSB. Today the mill is processing approximately a million board feet of finished product per day!

## "We do it all"

Mountainside Unloading handles all the yard duties for the mill: unloading trucks, stockpiling the yard and feeding wood to the mill's six conditioning ponds. When McKay acquired the business, it came with seven Prentice ATL 625 loaders. Last year, he sold off the last of his 625s and completed his transition to an all-green fleet of SENNEBOGEN 830 M-T log handlers. "I loved those old red machines," he said. "Prentice made a good machine. But now they've been replaced by a great machine."

The SENNEBOGEN 830 M-T is a purpose-built model for woodyard applications. It is a compact 91,300 lb. (41,400 kg) loader mounted on a rubber-tired undercarriage specially engineered to pull heavy log trailers. McKay recalls purchasing his first two units in 2013, following a visit from Westcon Equipment. "At first, the guys on our crews were kind of scared of them!" he laughs. "But after six months, nobody wanted to use the old loaders anymore."

## Extended reach

Those original two machines were equipped with a SENNEBOGEN K14 boom,

giving the 830 a reach of 45 ft. (13.7 m), compared to the 35 ft. (10.7 m) reach of the older loaders. Building stacks up to 25 ft. (8 m) high, McKay's operators are usually working at eye-level with their stacks. In fact, it was the height of the 830's elevating cabs that, at first, made them wary of riding in it! Soon, though, they found that extra cab height made stacking a much simpler and safer process.



## Four machines for efficient rotation

Over the next two years, McKay added two more of the same machines to his fleet, matching up his equipment with his 12-man crew rotation. At least two 830s are running day & night, often three when truck traffic is busy through the winter months. The crews work 12-hour shifts with a pair of operators alternating days and nights on each machine, four days on and four off. When they finish their shift block, the machines come in for cleaning and service, while the other two units go out for the next 4-day cycle. Typically, the yard handles 160 trucks of poplar wood per day, with about 50 truckloads going straight to the mill while the rest is stockpiled in the yard.

## Doing the work of Seven

With the new 830s, the yard now has 4-wheel-drive machines with dual

transmissions capable of pulling 100,000 loads through 6 inches of wet clay, day in and day out.

Last year, McKay added a fifth 830: this one fitted with the longer K19 boom that provides additional 10 ft. (3 m) of reach for high stacking. The objective is to build up the stocks before the roads are restricted by summer rains and mud. He is shooting for 240,000 m<sup>3</sup> stocked to be in the yard by spring. While this unit is dedicated to stacking duties, its real purpose is to reduce operating hours for the fleet.

## Sharing the load for long life

"With this rotation, we can keep these SENNEBOGENs going forever. They're a well-built machine, and I'm lucky to have some very smart fellows here to maintain our equipment." McKay also credits his factory service rep, in Stanley, NC, for providing the support his technicians needed in the early days to learn their way around the new machines. "Here we were, 2,000 miles apart from each other, and he would troubleshoot for us right over the telephone. Hat's off to that man, he gave us a lot of help."

Despite the distance to McKay's remote location [300 miles (500 km) North of Winnipeg], he relies on Westcon for quick delivery of any service parts. "If I need it, they can get it here within 48 hours. The parts warehouse in Stanley is a massive place. I ordered a few of their "Uptime Kits" and I'm glad I did. They also seem able to get urgent parts on an airplane and - bang! - it's in Winnipeg and on a bus to us the following day."

The reliability of Mountainside Unloading's service is what earned the firm its special place in the Louisiana-Pacific supply chain. With his five SENNEBOGEN machines, McKay has the capacity he needs to meet the requirements of a very productive mill, plus the flexibility to maintain a thorough service discipline that will deliver long life and reliable uptime without fail. "It's time sensitive to get this wood in like we do. It's a pretty impressive feat, what my boys are doing." ■



# Two SENNEBOGEN log handlers double down on green performance

The one thing better than a 730 M-HD log handler is two 730 M-HD log handlers!

That's the decision of the Rettenmeier Holzfabrik GmbH sawmill facility in Hirschberg, Germany. The Hirschberg mill is one of Rettenmeier's six timber processing plants, where the plant specializes in producing a wide range of softwood construction products, from dimension lumber to laminates.

Every Rettenmeier plant shares a common commitment to sustainable processes for sustainable wood products. Hirschberg's choice of SENNEBOGEN log handlers is a direct reflection of that commitment.

According to Sandro Egelkraut, Fleet Manager at Hirschberg, the

mill saw how the 730 M-HD met all its criteria for both productivity and "green" performance in the log yard – and quickly decided to add a second machine. "These machines are extremely durable and therefore very economical. This is why, in discussion with our SENNEBOGEN representative, we decided to purchase a second 730 M-HD for the sorting line."

The two SENNEBOGEN E Series machines fit in perfectly with Rettenmeier's corporate philosophy: "... sustainability and a positive ecological balance thanks to the lowest possible energy consumption and the use of resources in wood processing."

SENNEBOGEN's purpose-built pick & carry machines achieve low fuel

consumption, low emissions and long service life. The two timber handling machines work together in three shifts, handling 1,000 cubic meters per shift on the sorting line.

The 730's 360° swing range minimizes the need for maneuvering between rows of stacked logs, allow faster loading cycles which translate into further eco-efficiencies through a day's production. Their high-stacking capability, lifting up to 32 ft. (9.7 m) combines with their narrow profile, just 12 ft. (3.6 m) wide, to allow more wood to be stockpiled in less space – another significant saving in cycle times and operating costs.

Egelkraut also attaches great importance to safety at work and again gives a high grade to his 730s. "Since the paths between the stacks are very narrow, the machines



*The two 730 M-HDs work together on the sorting line in a three-shift operation*

need to be especially stable and maneuverable. Those features let our 730s pick and transport loads very safely. And thanks to the sliding door on the side of the cab, entering the cab is also easy and safe for our operators." ■

## Show Your True Colors!

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

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

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Lift More • Stack Higher • Cycle Faster

LOGGING/FORESTRY



# Green Hybrid Energy Recovery System

## Bigger loads. Bigger savings.

Simple but effective, the Green Hybrid systems lets your material handler lift more and lift faster with a dramatic reduction in operating costs. According to Jon Mihalic, Manager of Watco Companies barge and rail terminal in Industry, PA, as it relates to his 875 R-HD, "For fuel efficiency, there is just no comparison."

MODEL	Engine Model	Net Power
855 M	Cummins QSL9, Tier 4F	300 HP (224 kW)
855 R-HD	Cummins QSL9, Tier 4F	300 HP (224 kW)
860 M	Cummins QSL12, Tier 4F	364 HP (268 kW)
860 R-HD	Cummins QSL12, Tier 4F	364 HP (268 kW)
870 M	Cummins QSG12, Tier 4F	355 HP (261 kW)
870 R-HD	Cummins QSG12, Tier 4F	355 HP (261 kW)
875 M	Cummins QSX15, Tier 4F	525 HP (391 kW)
875 R-HD	Cummins QSX15, Tier 4F	525 HP (391 kW)
895 M	Cummins QSK19, Tier 2	755 HP (563 kW)
895 R-HD	Cummins QSK19, Tier 2	755 HP (563 kW)

Pressure from the energy recovery cylinder is stored in gas accumulators, secured in the back of the upper carriage each downstroke.

Stored energy from the accumulators is released on the upstroke to assist the boom in lifting the load.



Engineered with just standard hydraulic components, Green Hybrid saves energy costs by 30% on every lift.

The weight of the boom is potential energy for the Green Hybrid system to capture each downstroke of the lift cycle.

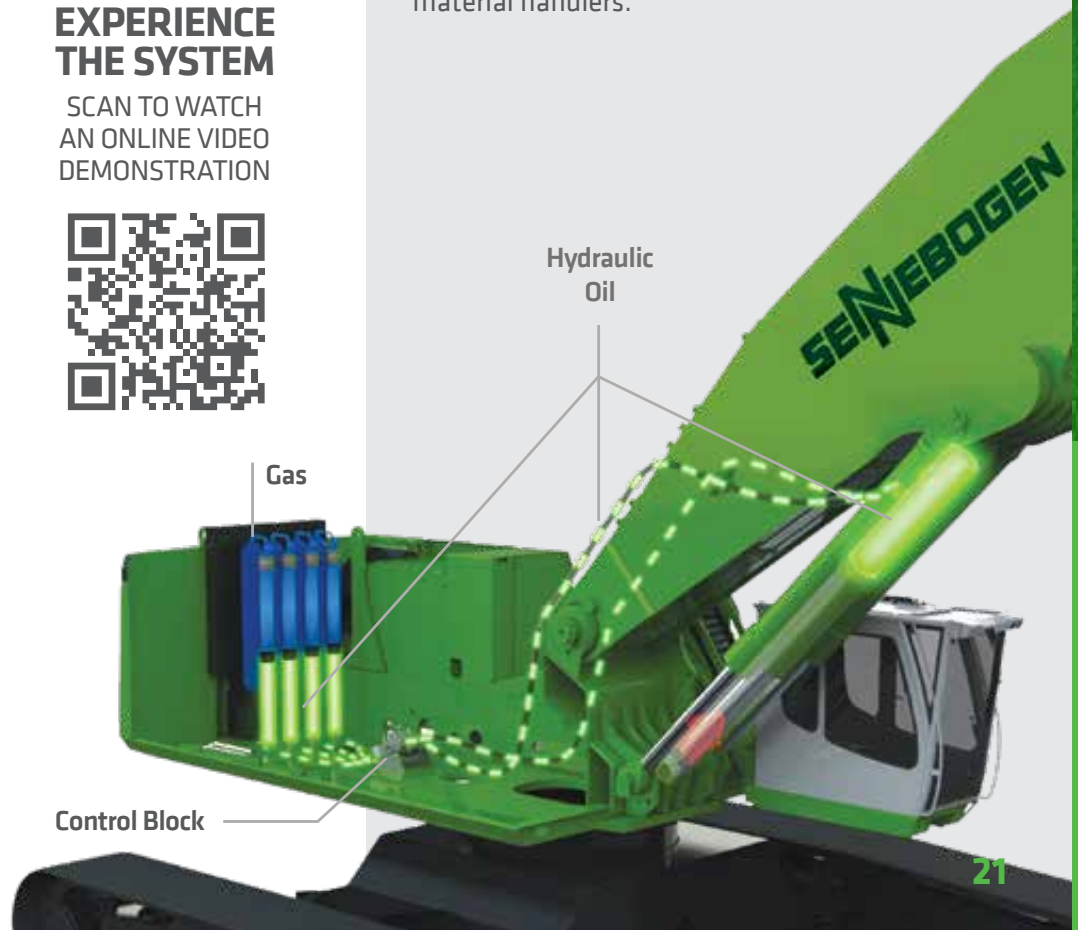
The downstroke drives hydraulic pressure in the large energy recovery cylinder, located between the main boom cylinders.

## EXPERIENCE THE SYSTEM

SCAN TO WATCH AN ONLINE VIDEO DEMONSTRATION



With their large center cylinder set between the boom's two lift cylinders, Green Hybrid machines are easy to distinguish from conventional material handlers.





# The Port Handling Specialists: SENNEBOGEN Offers More Choices For The 870 E and 875 E Hybrid Models

For decades, SENNEBOGEN has been making a name for itself with customer-specific material handlers, especially in the challenging port sector. SENNEBOGEN's versatile line of port material handlers is especially valued when bulk and general cargo needs to be unloaded from the ship or barge as quickly as possible.

The capabilities of SENNEBOGEN's port specialists were on large display at the recent edition of Bauma, where the firm demonstrated its 875 E-Series Hybrid model, featuring the now proven Green Hybrid energy recovery system.

SENNEBOGEN green line material handlers have proved themselves in demanding tasks around the globe with reliable technology, minimal operating costs and innovative, custom solutions for any

challenge. With the 870 E Hybrid and the 875 E Hybrid models in particular, SENNEBOGEN provides a wide range of products for port handling equipment with optional booms

reaching a range from 60 ft. to nearly 100 ft. (18 m to 29 m). The 875 highlights the newly developed boom concept engineered for optimized strength and efficient weight reduction while expanding their potential application for handling bulk and general cargo.

### Three new equipment options

The 870 E Hybrid model has been expanded with three new boom options: 79 ft., 82 ft. and 89 ft. (24 m, 25 m and 27 m). The SENNEBOGEN 875 E Hybrid is also updated with three boom configurations: 85 ft., 89 ft. and the longest at 95 ft. (26 m, 27 m and 29 m).



*This 870 E Hybrid has a reach of up to 88.5 ft. (27 m) and the SENNEBOGEN Energy Recovery System.*

The advantages of the boom systems include increased reach for high load capacities or higher strength to move even heavier loads with the shorter length booms.

With these modifications, SENNEBOGEN has positioned itself to meet industry specific requirements and is offering ports around the world more options to meet the needs of its ship and barge traffic.

Popular tried and trusted features such as the comfortable, spacious cabs, the hydraulic elevating cab and the Green Hybrid energy recovery system are still at the core of these updated port machines. The savings

in operating cost of up to 30 percent, with the SENNEBOGEN Energy Recovery System, has been tested and verified through several years of service in many diverse applications across the globe.

In addition to the structural changes, since 2019, the 870 E Hybrid and 875 E Hybrid material handlers are powered with Tier 4F engines.

*The SENNEBOGEN 875 E Hybrid material handler offers increased working loads and reaches of up to 95 ft. (29 m) with the lowest energy consumption.*

Their economical power comes in 350 HP and 525 HP diesel versions (261 kW and 391 kW) or in an environmentally friendly electric drive version. ■



## 4th Generation port facility adopts new hybrid SENNEBOGEN 870 M E-Series



Originating in 1902 as a mining operation, digging sand and gravel from pits in Neckarsulm, family-owned Freyer Hafenlogistik now towers over the skyline with its new SENNEBOGEN 870 E unloading ships at the inland river port of Germersheim.

Port logistics have become the focus of business for Freyer Hafenlogistik since the business began its diversification plan in Germersheim in 1969. Senior Manager Erich Freyer explains, "Keeping up with the times meant being able to react more flexibly to market

requirements. That's why we have expanded our capabilities since the turn of the millennium."

Acquiring the new 870 machine means it now has added capacity and flexibility to support the firm's varied interests in shipping commodities ranging from scrap and iron to grains and fertilizer. The giant material handler weighs in at a full 220,000 lbs. (108,000 kg), and sits perched atop a wheeled undercarriage with a

2-meter-tall pylon to support the 82 ft. (25 m) reach of its massive lifting boom. While the facility still operates a pair of smaller SENNEBOGEN telehandlers as well as SENNEBOGEN 860 M, the new 870 M E-Series now allows Freyer Hafenlogistik to unload any ship that can navigate the harbor.

### **Fleet expansion for even more flexibility in the port**

Thanks to the 870, ships arriving in Germersheim laden with up to 2,000 tons of gravel can be completely

emptied in just two hours. The site, employing 27, typically moves 350,000 tons of bulk and general cargo each year. Some of the material goes directly to storage in the firm's 50 ft. (15.2 m) high silo - well within the loading range of the 870.

The family's management team worked closely with SENNEBOGEN. The team was impressed as much by the mobility of the machine as its capacity. "As a family business, we must consider everything very carefully", he said. The 870 allows us to be agile on site and use the machine's flexibility to our advantage."

The machine's hydraulic joystick control system was also a determining factor. It lets the operator handle huge loads comfortably, precisely and accurately which is a requirement on the job. While the machine itself is surprisingly compact, operators are also surprised by the spacious comfort of the SENNEBOGEN Maxcab. It's fully equipped with an air-suspension seat, climate control and dual safety cameras are standard. Freyer had an additional camera mounted on the boom to give the operator a clear view of the business end when filling the silo. ■





# Watco upsizes to SENNEBOGEN Green Hybrid 870 at Cincinnati Salt Terminal



Recent upgrades to the conveyor system at Watco's barge terminal in Cincinnati led to the long-awaited replacement of the port's original SENNEBOGEN 870 material handler.

"There was nothing left of it," says Terminal Manager Rusty Smith. "This is a salt terminal – 98% of what we move here is salt."

Even with a protective Nyalic coating, digging into the corrosive salt every day will take a hard toll on swing machines. Smith says that the damaging effects of salt-handling will be evident within four or five years of service. Watco's previous machine put in a solid nine years in Cincinnati before being retired recently. In its place is a new, larger SENNEBOGEN Green Hybrid 870 R-HD.



The latest changes at the terminal include wider, faster conveyors, so Watco upsized to the new 870 with a 6 yard bucket to keep pace with the increased capacity. Smith reports that the terminal is now moving upwards of 400,000 tons/year for leading brands who operate salt processing facilities nearby.

"Watco is pretty sold on SENNEBOGEN," Smith says. "Our people there make sure we have the equipment we need at each terminal."

### 30% energy savings

The new 870 R-HD was one of the first models from SENNEBOGEN to feature its innovative "Green Hybrid" energy recovery system. Its distinctive, oversized center cylinder, mounted between the two boom lift cylinders, uses the weight of the boom on each downstroke to capture energy in a bank of accumulators at the rear of the machine. This energy is then used to provide hydraulic power to the boom on the next lift cycle. Other facilities that operate the 870 have reported savings in their energy cost, diesel or electric, of as much as 30%. The newest edition of the 870 incorporates updates to its boom engineering, achieving a lighter weight while increasing its lift capacity.

The "Green Hybrid" system delivers its maximum benefit in applications that require frequent up and down cycles. As a result, barge facilities such as Watco's are ideal for the 870 and SENNEBOGEN's other Hybrid models.

### Heavy lifting with increased safety

The 870 is a 150-ton machine with a nominal reach of 89 feet (27 m) and maximum load capacity of 7.5 tons. Standard configurations are also available with a reach of 85 and 95 feet (26 and 29 m). The unit in Cincinnati is powered by a Cummins 595 HP (391 kW) Tier 4 Final diesel engine. Electrically powered versions are also offered with a 430 kW motor.

"This 870 has done all we ask it to," says Smith. "Lift, reach, power... and our operators are happy with their new space!" While the previous material handler was equipped with SENNEBOGEN's elevating Maxcab, the cab of the new machine can also move forward and back to allow a better view in to the barge hold. As well as helping the operator move material more efficiently, the "up and out" cab capability improves safety for skid steers and crews working inside the hold. ■

# Versatility and cost savings earn a spot for SENNEBOGEN “Green Hybrid” technology



Exporters and stevedores working in the north German Town of Vierow have been admiring the performance of a towering green addition to the port’s material handling fleet.

In early 2019, Viela Export GmbH commissioned its new SENNEBOGEN 855 E-Series material handler. The difference between this and conventional material handlers is clear at a glance. It features an oversized central hydraulic cylinder between the two main lift cylinders of its massive boom.

That cylinder is the heart of the innovative energy-recovery mechanism that SENNEBOGEN has named the “Green Hybrid” system – a major leap forward in lifting power and efficiency. Although the 855 model is a relative newcomer to the SENNEBOGEN lineup, the Green Hybrid system has been

proving itself in larger models around the world since 2013.

## How it works

When the 855’s boom is lowered, the giant recovery cylinder compresses nitrogen gas in an accumulator at the rear of machine. On the next lift, this stored energy is released to assist in raising the load. The result is a significant reduction in demand for engine power, while the 855 works with almost constant power throughout the cylinder cycle. With this simple hydraulic solution, the machine saves up to 30% of the energy cost to complete each of its heavy lifts.

But Viela was looking for more than savings in its new equipment. “The versatility of SENNEBOGEN machines played a big part. We were able to configure a material handler that met our requirements to the letter!” says

Henning Bligenthal, CEO of Viela Export. SENNEBOGEN delivered a customized solution.

Powered by an efficient 309 HP (231 kW) Tier 4 Final diesel engine, this unit is equipped with a 6.5 ft. (2 m) pylon mount that allows operators a better view into the ship’s hull. It was spec’d with a 65 ft. (20 m) banana boom which extends its reach into the hold even at the lowest points along the ship’s hull.

SENNEBOGEN’s signature Maxcab, which elevates and moves forward hydraulically, provides a viewing height of up to 25 ft. (7.5 m) directly into the hold. The guarded gallery around the uppercarriage and the sliding door entry to the cab also contribute significantly to the operator’s safety. ■

Fast Duty Cycles • Low Operating Cost • High Capacity

PORTS/WATERWAYS



*855 Green Hybrid loading ships at the Port of Vierow*



# “Holistic” Demolition Contractor Finds 830 R-HDD Is The Right Choice For Multiple Onsite Roles

Christian Metz, founder of the Metz Demolition Company in Regensburg, Germany, was looking for a durable material handler that would touch all the bases for demanding projects in tight urban jobsites. After completing the tear-down of a long-standing eyesore in the city’s center, he knew that the SENNEBOGEN 830 R-HDD was the right machine for his team.

The old city of Regensburg is a UNESCO World Heritage Site but the former Wangler furniture store, housed in the remains of a former fortress, had outlived its time. The massive structure had been vacant for over 10 years, and its neighbors welcomed the crew from Metz Erdbau GmbH when they arrived to take the building down.

Founded in 2007, Metz specializes in a “holistic” approach to dismantling buildings – a one-stop service from controlled demolition, to onsite crushing and sorting, to the removal of material, all with a close eye on safety and environmental standards.

In their search for the right material handler, Metz had a demanding list of needs: easy to transport on a lowboy trailer, fast set-up time, fuel efficient, small footprint on the jobsite and adaptable to multiple tear-down and loading tasks as the project progresses.



*Equipped with a demolition grab, bucket or shears, the flexibility of the 830 E demolition handler is impressive*



*Reach of 62 ft. (19 m), 3.5 ton load capacity – the 830 E demolition handler is a powerful partner on downtown demolition site*

## Designed for demolition

The SENNEBOGEN 830 R-HDD E-Series material handler was built just for these applications. It’s a 90,000 lbs. (40,800 kg) purpose-built machine on a crawler undercarriage that has been specially modified to take on the demanding conditions of demolition work. With its 62 ft. (19 m) reach, the boom can be fitted with a variety of attachments to dismantle the building, extract the material, sort it and load it to the on-site crusher. The crawler’s square footprint supports a central swing point that equal load limits from all sides through 360°. This means the 830 can complete any of its tasks from any position, minimizing the need to maneuver on the jobsite.

## Stability, reach, and comfort

The Metz operator on the 830, Andreas Feigl, also approves of the machine’s performance. “Despite its compact footprint, the machine is very stable”,

he reports. “This is especially evident when we are working with large loads or reaching up high.”

SENNEBOGEN’s elevating Maxcab provides Feigl with an ideal view of the entire work area. As well as raising the operator to an eye-level height of 20 ft. (6 m), the Maxcab has a 30° tilt feature that lets Feigl work comfortably as he controls the shears, bucket or demolition grab, even when reaching the tallest part of the building.

## Always an eye on costs

Operating with reduced emissions is an important responsibility, especially in urban locations. It’s not just being respectful to the environment, but it’s also easy on the wallet. “The SENNEBOGEN 830 comes out really well in the time-money-precision equation”, says Metz. “The low fuel consumption of its Tier 4F diesel engine and the reduced downtime with fewer refueling stops has completely won us over!” ■

# 821 R-HD Turns Demolition Debris Into Revenue Before It Leaves The Jobsite



The owner for Celtic Demolition, Ross Tumulty, says he was “pleasantly surprised” by how well his decision worked out, when he added a SENNEBOGEN 821 material handler into his equipment fleet. “We had a 700,000 sq. ft. demolition project, but the customer would not allow any onsite crushing”, Tumulty recalls. “We needed a new solution to truck all the concrete off the site for crushing.” Tumulty knew that cleaner concrete would reduce his dump fees, while creating a new revenue stream from any metal he could recover. Deciding that the 821 material handler was the right tool for the job, Tumulty found that his new process would be earning dividends for his entire business.

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

Celtic Demolition Inc., has been serving the metropolitan area of Washington, DC since 1985, as a full-service commercial demolition contractor. Tumulty is the President and founder of the company, which has earned a reputation as a leader in adopting and improving processes to meet the most demanding goals for cost-efficiency and recycling.

With the customer disallowing onsite crushing of the concrete debris, Tumulty devised a different method to minimize the number of truck trips required to move the material off the site and to maximize its recycling value.

## **A new onsite process**

Celtic already had an excavator with a concrete pulverizer onboard to do the primary demolition and a loader to build stockpiles of the material. What he needed was a machine that could sort the material and sweep the piles with a magnet, creating separate streams for recycling the metals and the concrete.

“I talked to some of the scrap metal recyclers I know”, says Tumulty, “and they all said SENNEBOGEN was the best machine for the job.”

The unit he chose is a compact 55,000 lb. model mounted on crawler tracks featuring the elevating SENNEBOGEN Maxcab. Fitted with a 48” scrap magnet, the 821 R-HD operates on a small footprint, ideal for tight urban jobsites. It’s able to sort, sweep and load the metal into containers from



any direction, while the elevating cab allows a wide angle view of the entire work zone.

Sweeping for metals proved to accomplish more than simply offsetting Celtic’s costs. According to Tumulty, “The shipped concrete is, I would say, 98% free of metals. It’s so clean that our recycler took \$5.00 a load off his original quote, just because he liked the material!”

## **A versatile solution**

Once it arrived on site, the project manager found more work for the new material handler. A second application,

loading scrap sheet metal into trucks, especially benefited from the elevating cab. As Tumulty points out, “Having a bird’s eye view into trailers is especially helpful for moving bulky material into the trailers. The high perch lets you see how you’re loading the material; you can be more accurate and build the load evenly.”

Well experienced in complicated and challenging demolition projects, Celtic now sees the new process as the go-to

approach for moving and recycling material from the worksite. “Now that we’ve seen what we can do, it makes sense for us to continue this way. Our new process, with the SENNEBOGEN, doesn’t take up as much room on the jobsite as a crushing and screening plant. This makes it a safer and more cost effective way to operate. It’s a great tool for us; we are the only ones using it in the area and it gives us an advantage when we’re quoting.”

The SENNEBOGEN way has become Celtic’s way to complete demolition jobs more efficiently and profitably. ■

Durability • Safety • Versatility

DEMOLITION



# MAXCAB COMFORT IS A KEY TO SENNEBOGEN SAFETY AND PRODUCTIVITY



For operators who go to work in SENNEBOGEN material handlers, the cab comfort is more than a luxury. Our Maxcab design is engineered to protect operators (and their workplace) from fatigue and to enhance the productivity of our machines.

Continuing improvements in fuel efficiency and reliability mean that operators spend more time in their cab on every shift and, in some applications, shifts can stretch beyond the standard eight hours. These advances have been matched by the continuing evolution of the Maxcab to keep operators fresh, alert and productive.

## **Bigger IS better!**

The latest version of the Maxcab is about 3" (70 mm) longer than the previous generation. This expansion not only provides more space for the operator to work comfortably, it offers additional room for features such as a refrigerated cooler behind the seat and more storage space for tools, personal effects and other necessities.

The air conditioning system in today's Maxcab provides nine outlets strategically distributed around the cab for optimized air flow. Even with the fan on high, the air is blown at a pleasantly low speed.

Creating ideal conditions for fatigue-free work, the consoles and hydraulic-over-hydraulic joysticks move with the standard climate-controlled suspension seat. The work station satisfies the ergonomic needs of the operator by individually adjusting to the size and weight of every operator.

Charging outlets have been located behind the driver's seat and additional storage spaces in the interior keeps the area tidy but all items are within easy reach of the operator.

Helping to ensure a pleasant working environment, the Maxcab features a sliding entry door where the door's side window panel can be opened to allow a free flow of outside air.

## **A benchmark in machine ergonomics**

The first generation of the Maxcab, launched in 2006, established a new benchmark in comfort, ergonomics

and safety for the operators of material handlers. End-users were involved in the Maxcab's design right from the start. Throughout its development, SENNEBOGEN prioritized higher-quality solutions, including the most easy-to-understand, simple and intuitive operating elements.

Safety, as ever, is paramount in this Maxcab. The innovative sliding door and catwalk at the entry continues to provide convenient, safe access to the new Maxcab but it now has a wider opening for even easier access. Additionally, the new cab's floor mat is flush with the access opening, making the cab's floor safe to access and easy to clean.

The windshield on the new Maxcab has been pulled right down to the floor optimizing the operator's view of the primary work area at the front of the machine. All this glass area gives the operator an unobstructed panoramic view over the entire jobsite. With the current Maxcab, the windows also offer a new level of protection, with bulletproof armored glass in front, above and to the sides. ■





AB



Purpose-Built From The Ground Up



## 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

MAXCAB



# A SIMPLE QUESTION OF BALANCE

Increasing capacity at lower cost is simpler than you might think

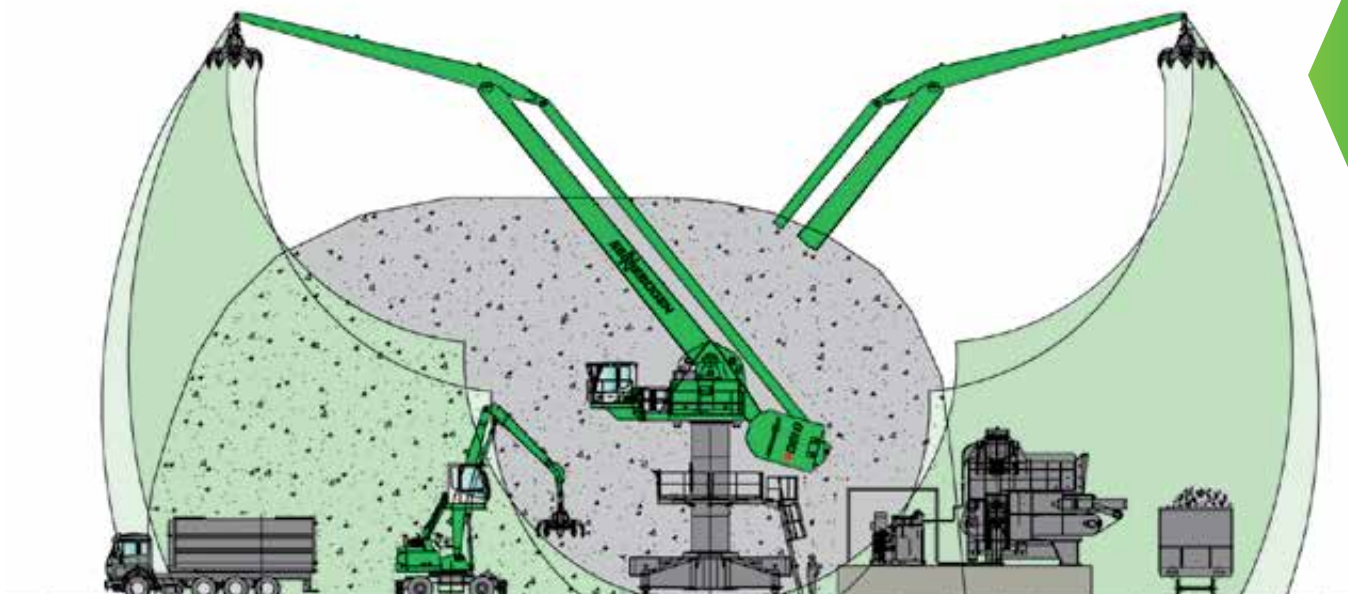
Customers around the world agree that our family of EQ (equilibrium) balance cranes is a true innovation in the field of bulk material handling. The simple EQ mechanism provides a highly reliable solution, with no complex gearing or electronics that achieves dramatic reductions in energy costs while increasing load capacity and effective reach.

By dynamically counterbalancing loads throughout the lift cycle, EQ material handlers can achieve heavier lifts with longer reach than any previous equipment. This design has proven itself in varied applications where large volumes of materials need to be moved including ports, pulp mills and scrap yards.

Model	Type	Operating Weight	Max
8100 EQ / 8130 EQ	Crawler	270,000 lb (122,471 kg)	88'7" (27 m)
	Stationary	283,800 - 310,200 lb (128,732 - 140,708 kg)	88'7" (27 m)
8160 EQ	Crawler	330,003 lb (149,688 kg)	101'8" (31 m)
	Stationary	363,004 lb (164,658 kg)	101'8" (31 m)
8320 EQ	Crawler	573,200 lb (260,000 kg)	131'2" (40 m)
	Stationary	573,200 lb (260,000 kg)	131'2" (40 m)
8400 EQ	Crawler	705,486 lb (320,006 kg)	105' - 137'10" (32 - 42 m)
	Stationary	705,486 lb (320,006 kg)	137'10" (42 m)
880 EQ	Crawler	473,998 - 595,255 lb (215,002 - 270,003 kg)	114'10" (35 m)
	Stationary	473,994 - 595,248 lb (215,002 - 270,003 kg)	114'10" (35 m)

## Doing more for less

Buss Erk, a subsidiary of the Hamburg Buss Group is handling around two million tonnes of bulk and general cargo per year from ships up to 30,000 DWT, while saving close to 75% of their operating cost with this electric drive 8160 EQ balance crane.



## Maintaining equilibrium for safety & savings

The long arm of the balance crane supports a safer working environment. A simple mechanical connection between the jib and the counterweight ensures that the load is continuously in balance in all lifting positions, reducing the energy cost of each lift. This allows trucks and crews to move more freely and safely through the workzone. The high vantage point of the Maxcab also gives operators a clear view of activity across the entire site.

## Simpler and safer

This centrally located SENNEBOGEN 8130 is the heart of the reorganized lumberyard at Borg Manufacturing's MDF factory in New South Wales, Australia. Serving a 16,000 sq. ft. yard area, the stationary 8130 replaces a series of conveyors that were fed by multiple smaller loaders. The company reports savings on fuel and maintenance for the previous machines while the 8130 improves logistics and makes the yard a safer workplace.



## 50% faster with "positive pick"

This gantry-mounted 880 EQ operating in downtown Toronto, Canada, unloads ships 50% faster than the two cranes it replaced. The project's Engineering Manager said, "The (equilibrium) idea was attractive to me immediately. I appreciated the energy efficiency of the counterbalance design and the 'positive pick' of the material handler's fixed boom." Unlike rope cranes, material handlers can use their hydraulics to push their attachment down to get a deeper, more efficient bite into dense loads of sugar.





# SENNEBOGEN TRAINING CENTER

## The heart of “uptime” for both dealers and customers



The group of students sporting varied company names on their shirts are gathered close to the big green machine. Their instructor has opened a side hatch to demonstrate some key service points. The group talks casually, posing questions to the instructor and sharing personal experiences from the field.

In most ways, it's a typical training session for heavy equipment technicians. But, on a closer look, a few differences become apparent...

For one: This is clearly not a typical shop. It's a clinically pristine workspace rising three stories high, overlooked by a viewing gallery.

For another: This machine. Parked in this bright, climate-controlled classroom is a 140,000 lb. (65,000 kg) SENNEBOGEN 850 material handler, towering almost 45 feet tall (14 m), even with its boom and stick folded down.

And then, there's the people. As the attendees speak with each other, it emerges that only half of the class

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

*Tim Thibodeaux, President  
Thibodeaux & Son Scrapyard*

came here on behalf SENNEBOGEN's authorized dealers. The others work on the maintenance teams for SENNEBOGEN customers: recycling yards, sawmills, waste facilities, barge ports... They are here at the invitation of SENNEBOGEN and their dealers, to receive the same factory training as technicians within the family of SENNEBOGEN's dealer network.

And there's one more significant difference: all in attendance receive their training at no cost!

### **Growing the network**

Constantino Lannes, President of SENNEBOGEN LLC, says that opening

the Training Center to dealers and customers alike has been key to the company's continuing success. “When the Sennebogen family decided to bring their material handlers to the Americas, they knew that support would be absolutely critical to customers here,” he says. “With free training available to dealers and end users, we have the industry's largest population of factory-trained technicians. Wherever our machines are operating, no matter how remote, we can make sure there's someone nearby qualified to keep them up and running.”

Customers are routinely surprised and delighted by the opportunity. As the President of one scrap facility commented, “Other OEMs don't want to show anybody else how to service their machines. That's business for the dealer. But it's a big advantage for us to be able to work on our own machines.”



## SENNEBOGEN COURSES

Service Level 1

Service Level 2

Operator Familiarization

Parts Training

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

### Changing expectations

Shared with SENNEBOGEN's 100,000 sq. ft. parts warehouse and head office facility in Stanley, NC, the Training Center is actually "firewalled" from the building's other operations. Attendees can't be distracted or interrupted by the outside activities. Along with the three-tiered training bay, classrooms are fully equipped with the latest teaching and e-learning technology.

A component room, models and breakout boards support hands-on instruction. But SENNEBOGEN's long-time Service Manager, Jim Westlake, believes that the most valuable feature of the Training Center is the distance it puts between trainees and their everyday workplace.

"It seems to change the expectations of the principals and the customers who send their people here," Westlake says. "They are being selective in who they send. We see more senior technicians now - the ones who are in the best position to pass along what they learn to others in the shop. Later, we don't get questions about issues that were already covered in class. It works for us, and it works for our customers."

### "A huge difference"

John Anderson is Director of Maintenance for ABC Recycling in British Columbia and he knows first-hand how scarce qualified equipment mechanics can be. "If we don't have the people we need on our own payroll, we can end up waiting a long time for machine service. Having our own team makes a huge difference." Trevor Reid, the General Manager for a sawmill, located hundreds of miles from the nearest city in Saskatchewan, also appreciates having knowledgeable staff on-site. "Our technician came back with rave reviews about the SENNEBOGEN facility and all it cost us was airfare and a hotel room."

### No summer camp

Jeff Dwyer is the Chief Trainer in the school. Jeff has been with the company

for two years. He brings both hands-on and shop experience to the classroom. When technicians come to Stanley for training, they can remain focused as they are not being pulled away from training to answer other questions. When Jeff conducts training, it's no summer camp. There is always a professional but relaxed environment maintained from beginning to end.

Westlake and Dwyer both place a high value on hands-on instruction and so do the attendees. "It takes a mechanic to teach a mechanic," Hardin continues. "A student from one of our dealers spelled it out: *Sometimes you go to training where everything is on paper and you can't relate it to the real product. Here, you see exactly where to find things on the machine so you're better prepared to troubleshoot it when you're in a hurry in the field.*"

### Technicians, and more

According to Lannes, the goal of the Training Center is to cultivate the nation's network of technicians with specialized factory training on material handling equipment. To date, the Center has graduated more than 1,000 technicians through its five-day Service Level 1 program. After returning home to put their new knowledge to work, graduates are eligible for the advanced Service Level 2 course for five additional days of in-depth troubleshooting instruction. Additional programs are available for parts technicians as well as an operator familiarization program right there at the Center.

**All FREE!** ■

## Service Level 1

### 5 Day Course

#### Course Content:

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

## Service Level 2

### 5 Day Course

#### Course Content:

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

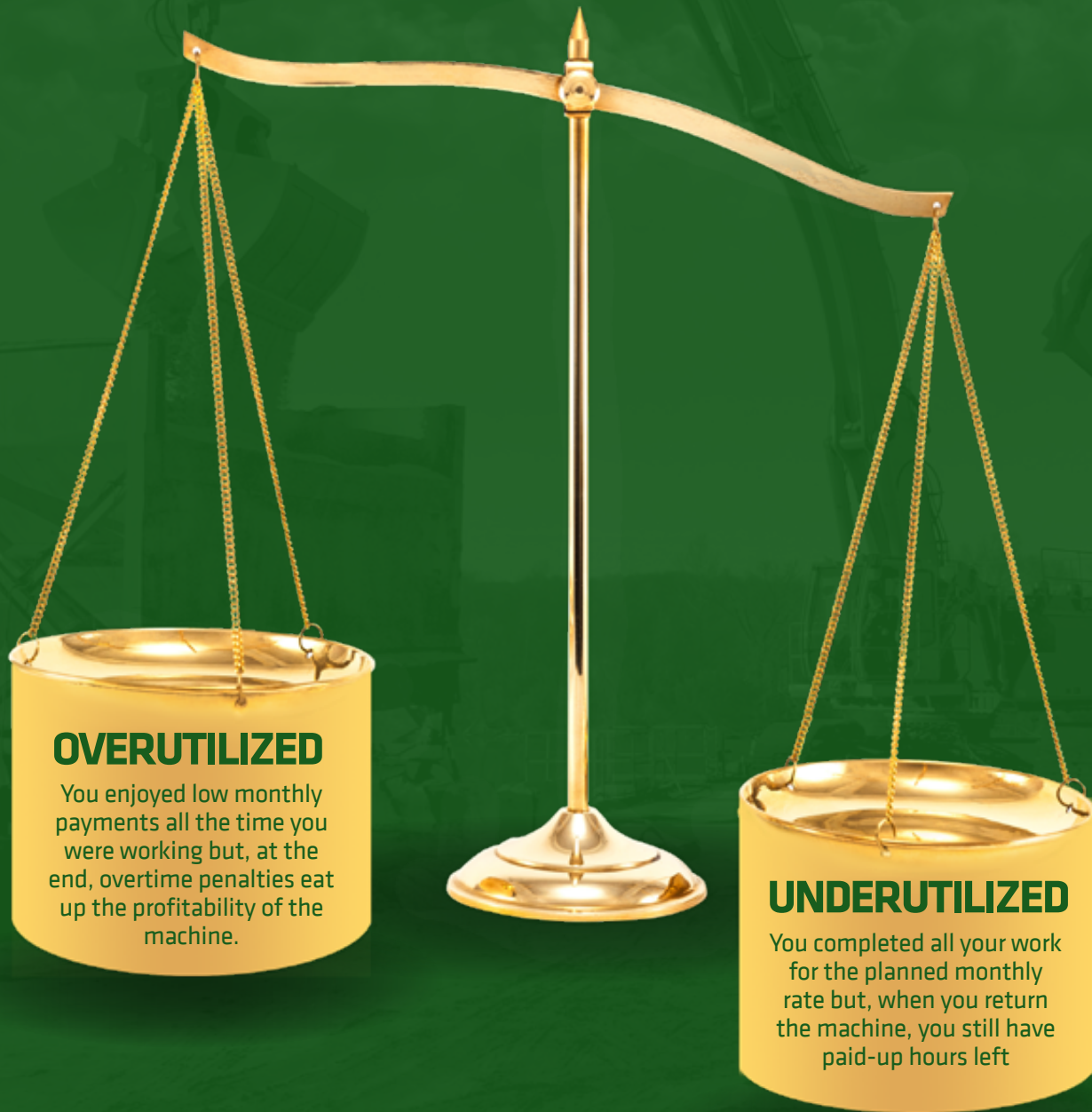
Level 2 classes are smaller & more intensive & build on Level 1.



# WEIGHING UP THE RIGHT LEASE

**SENNEBOGEN**<sup>®</sup>  
Capital

Until now, the odds have been stacked against you



## But now there's a better way

The industry's first Lease By The Hour<sup>®</sup> plan from SENNEBOGEN Capital offers fleet owners an alternative source of equipment financing that:

- Eliminates the risk of overtime penalties during busy work periods
- Eliminates high monthly carrying costs during slow work periods

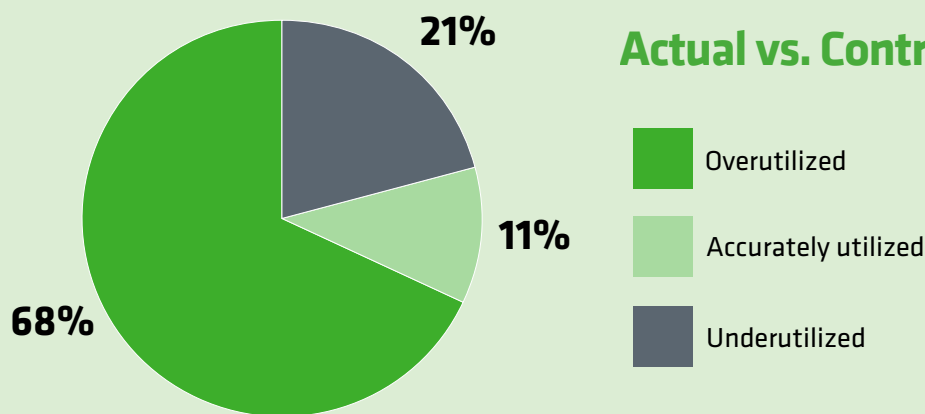
SENNEBOGEN's National Accounts Manager, Mike Smith, reports that this novel financing package has been very well received by some of the nation's largest material handling fleets. "It must be working for them," Smith says. "No one who has signed onto Lease by the Hour has pulled out of the program."

SENNEBOGEN Capital provides the full range of traditional packages for financing equipment but, according to Smith, Lease By The Hour is catching on with equipment managers and finance executives with many of the big names in scrap recycling. "This program gives them greater planning flexibility and more responsiveness to industry cash-flows than any traditional lease. Their monthly payments reflect a practical minimum usage expected across the usual four or five years of a lease term. But if they get busy and their utilization rises, the payments and term are adjusted accordingly. You can make hay while the sun shines and the lease term ends itself before you're caught going into overtime hours."

Jerry Sokolowski, VP Program Management for SENNEBOGEN's financial arm, explains that, "Every agreement for Lease By The Hour is based on the customer's historical usage pattern and the expected residual value of the machine." Customers can choose from several purchase or lease packages tailored to their business, but Lease By The Hour is increasingly popular. By keeping the lease term and costs in sync with business cycles, Lease By The Hour helps executives to report more accurately to their stakeholders, year to year. As Sokolowski says, "The operating cost of the equipment is adjusted automatically, month to month. As the timelines for projects and seasonal peaks come closer, equipment demands become more predictable. CFOs get a clearer picture of profitability for their forecasts, with the confidence that they won't be hit with future overtime charges."



## DID YOU KNOW... as many as 90% of equipment users are overpaying for their equipment leases?



An industry survey covering thousands of equipment leases revealed that only 11% of users forecasted their utilization hours accurately.

Smith notes that Lease By The Hour is an excellent option for dealers, too. "Typically, these leases go with a planned Repair and Maintenance Program (RAMP). This puts the dealer's technicians onsite with the machine every month. First off, that means the machine always gets the proper care to minimize downtime for the customers. And often, the tech can take care of the service needs for other machines while they are in for scheduled servicing, so the whole fleet gets better care. More importantly, the techs can see how hours are accumulating on the machine. In a few years, as the hours add up to the contracted amount, the dealership will have a better idea of when the customer will have to replace it. Now the dealer can order a replacement from the factory in time to have it delivered when the customer needs it."

"The whole replacement cycle becomes seamless, with less guesswork. By adjusting the term according to usage, there's little temptation for customers to extend their use of the machine past the lease term - the lease extends itself when the machine has productive hours remaining on it. And you also don't keep running a machine after it's holed out."

"To really understand Lease By The Hour," Smith concludes, "You have to get your head around the idea that you aren't really leasing a machine - you're leasing production. If the machine isn't producing, you don't pay."

## Learn More About Lease By The Hour®

See your SENNEBOGEN dealer for more information on all the financing options available from SENNEBOGEN Capital - or scan this QR code for the answers to common questions about Lease By The Hour®.





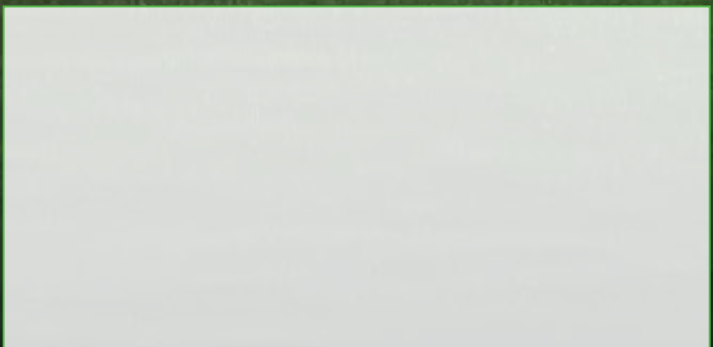
“ Every year SENNEBOGEN continues to invest in our facilities, staff, inventories and services – because we believe in the strength of our distributors and their customers. ”

*Constantino Lannes*



OUR COMMITMENT

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.



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

**SENNEBOGEN®**

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