

Sennebogen 875: working worldwide

"Something big is headed our way," Andre Heidkrüger of BLG Logistics must have thought as the new Sennebogen 875 mobile crane arrived at the Port of Neustadt, Bremen, in March 2014. The new port crane is a success story: Sennebogen officially introduced the 875 E-Series at Bauma 2013 (an international trade fair) as a world first. Since then the 875 has proven itself worldwide with its flexibility and ease of use. Particularly remarkable are the various undercarriages and an intelligent energy recovery system. Meanwhile several machines are working all over the globe.

BLG Logistics: the 875 in Bremen

This is something the founders of Bremer Lagerhaus Gesellschaft would not have dared dream of back when they started the company in 1877. Over the course of more than a century, what started as a small, regional association has grown into a logistics company spanning the globe. In the mid 1990s, the BLG Logistics group grew from a local port handling company into an international logistics service provider. From shipping containers to automobiles, BLG moves material along every method of transport. Back in Bremen, where it all began, cargo handling is still alive and well today, and with the new Sennebogen 875 mobile crane it has been given another big boost.

Since mid-2014, the 875 mobile crane has been providing its services at the quay as a handling machine that is both innovative and efficient. In close cooperation with Sennebogen and dealer BRR (Baumaschinen Rhein-Ruhr), Andre Heidkrüger and his colleagues at BLG searched for the ideal machine for their wide range of needs: the 875 was what they settled on.

The 165-tonne handling machine with its mobile undercarriage is an imposing sight. A four-axle, wide-gauge undercarriage that is fully hydraulically driven allows the 875 to reach speeds

of up to 5kmph. Loading and unloading incoming ships goes just as quickly. Just a few hours after arriving, ships must depart once again for the high seas carrying shipping containers, general cargo, large-diameter pipes, timber products, whole industrial machines and an array of heavy cargo.

BLG Logistics operates with the Port of Neustadt in Bremen, Europe's largest terminal for conventional freight, and every year around two million tonnes of cargo is handled – a challenge to both man and machine. The new port crane's day-to-day cargo largely consists of timber products and large-diameter pipes. Depending on the cargo, a cycle takes about two minutes, which is a substantial increase in efficiency over the previous rope crane. More importantly, however, is that the machine can be used at different locations at the port thanks to its mobile undercarriage. Various attachments, from cargo fasteners to vacuum crossbeams, can be switched out quickly on the go. With a range of up to 27 metres, even the largest ships can be serviced confidently.

The 875 in Spain

The 875 port crane has further proved itself with Spanish customer Heavy Movement at the Port of Santander in Spain with its state-of-the-art technology and low energy consumption. The handling machine is tasked with continuously supplying the nearby steelworks with scrap delivered by ship. Sales and service partner MYCSA in Spain delivered a new E-Series of the Sennebogen 875 to the Port of Santander. The green machines have long since become indispensable among the extensive machinery belonging to customer Heavy Movement. Around 20 material handlers around the globe are showing their stuff without fail. It is not rare to reach up to 20,000 hours of operation. Nothing less is expected from the new 875. Built on a crawler gantry undercarriage, the handling machine can traverse the length of the wharf with

ease. Everyday, ships come to Santander filled with mixed scrap for the nearby steelworks which is unloaded by the 875.

The 875 in Turkey

As a complete provider in the areas of freight logistics and port logistics, the company Kocaman Denizcilik founded in 1987, services the Akso seaports in Turkey and ensures smooth handling of the loading processes. In this regard, with the new Sennebogen 875 an unparalleled machine development has been placed in practical implementation. A sophisticated machine concept, including energy recovery system and electric drive, makes the machine an economical materials handling specialist.

The machine, which was delivered toward the end of 2013 by the Turkish sales and service partner Forsen, is used exclusively for unloading coal in Akso Port. Equipped with a 7m³ double shell grab, approximately 600 tonnes per hour are moved, and with just 30 seconds per cycle, the machine was able to prove its performance capacity within the first days of operation. The 875 was especially developed for the customer requirements and adapted to the local conditions. This machine was set up on a crawler gantry undercarriage with a 5 metre clearance height and 5.80 metres of track width. In daily operation the machine unloads arriving ships that deliver coal by the tonne for the adjacent power plants. The existing conveyor belt transports the coal farther along the quay. To enable work above the conveyor belt system, including feed hopper, a mobile crawler gantry variant was selected. This allows flexible work over the entire length of the quay and beyond, and cuts the slewing angle in half, since it is possible to unload coal directly underneath the machine into the funnel – an efficient saving of time and facilitation of work.

E-drive and Green Hybrid

The Turkish Sennebogen 875 E-Series is driven by a powerful 355 kW electric



Left: Logistics service provider Heavy Movement unloads steel by the ton in Santander, Spain, with a new Sennebogen 875 port crane; Middle: Another Sennebogen 875 E-Series successfully handles coal for the customer, Kocaman Denizcilik, in Aksa Port, Turkey; Right: Caption: BLG Cargo Logistics is making waves with a new Sennebogen 875 mobile port crane at the Port of Neustadt. Thanks to its mobile undercarriage, the crane can go anywhere with ease

motor with a mobile power supply via a laterally mounted cable drum. Operating and service cost savings of up to 50% relative to a conventional diesel machine are achieved through the modern electric drive. Additional advantages are longer maintenance intervals, the fact that fuel stops are dispensed with, and a longer component service life.

Saving energy with every stroke

For the people in charge, whether at BLG, Heavy Movement or at Kocaman Denizcilik, the decisive factors were the high flexibility and mobility, as well as the low operating and service costs. The innovative Green Hybrid energy recovery system saves up to 30% more energy than conventional concepts. The principle is easy to understand. A third hydraulic cylinder, placed directly between the two hoist cylinders, stores

the energy produced by lowering the boom in compressed gas cylinders. This accumulated energy is then provided during the next stroke. The principle is similar to a spring being compressed and then releasing its energy when it is allowed to expand.

But what would the best machine be without a good operator? For operators, the elevating Maxcab industrial cab provides an ideal overview of the work area, even into the ship's cargo hold. Simple maintenance tasks can also be completed quickly thanks to the machine's clear design. Also, the SENCON smart control system provides all machine parameters and data on a clear display.

About the organisation

Sennebogen was founded in 1952 to develop and produce machines for the

agricultural industry. The company has now established itself as a full service provider and quality leader in crane technology and material handling. As an international company, Sennebogen develops and produces complete model ranges for duty cycle crawler cranes, crawler, telescopic and harbour cranes, material handling machines, multi-loaders as well as base carriers. In addition to flexible machines from series production, Sennebogen also designs individual specialised machines in close collaboration with its clients.

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