

# E-Crane installed at recycling plant



The new E-Crane® installed at Van Heyghen Recycling is one of seven in the Group Galloo system spanning three countries.

A new 2000 Series E-Crane at Group Galloo's Van Heyghen Recycling yard in Ghent, Belgium, is the third E-Crane installed at this location and the seventh at Galloo scrap handling operations at four sites in Belgium, France and the Çolakoglu Metalurji steel mill in Turkey. The new 2000 Series E-Crane has greatly reduced operating time and costs in loading scrap into Handymax vessels and in receiving, handling and stocking scrap in the yard.

The 2000 Series E-Crane has a lifting capacity of 30 metric tonnes in grab mode (40 tonnes in hook mode) and a reach of 38.2 metres. The unique E-Crane parallelogram design ensures near perfect balance throughout its full working range and provides significant energy savings and lower operating costs. The new E-Crane is mounted on a high gantry and is specially designed for curved rails.

Other special design features include a moveable cab for optimum operator visibility, a camera system for the 12m<sup>3</sup> grab and matching quick-change system. On-site testing and tuning

were completed in October 2009, followed by comprehensive training for operators and maintenance staff.

The new E-Crane can stockpile scrap to a height of more than 25 metres. This is necessary to pile enough scrap to ensure that the Handymax ships (30,000–40,000dwt) can be easily loaded without bringing up extra scrap during the loading process.

The new E-Crane handles scrap brought in and dumped by trucks, as well as larger quantities brought in by lighters, barges and coasters. During the unloading of the first barges it was clear that the process took only half the time of the previous equipment.

Loading outgoing vessels with processed scrap has been accomplished with great efficiency also. For example the new E-Crane has been loading smaller coasters at 1,000tph (tonnes per hour).

However, the ultimate test was to load the first Handymax vessel. These ships have five holds, four deck cranes and a typical length of 180 to 200 metres. Handymax and smaller Handysize ships are the workhorses of dry bulk ocean transport. Although

a Handymax is smaller than a Panamax (50,000 to 80,000dwt), loading and unloading these ships presents daunting challenges that require crane versatility.

The first Handymax the new 2000 Series E-Crane loaded was the *Monica P.*, a ship that is 31 metres wide, 190 metres long, and has a load capacity of 46,000 tonnes. Once moored, at about 7am on a Thursday, the loading began. Two mobile harbour cranes were also used to assure maximum efficiency. The E-Crane loaded the smallest and most difficult number one hold at such a record pace that it was employed to load the number two hold by about 11am. The overall performance of the E-Crane was so quick and efficient that only one harbour crane was used on Friday. At about 6am Saturday morning, the *Monica P.* set sail with 35,000 tonnes of scrap that had been loaded in 48 hours.

The installation of the new 2000 series E-Crane at Ghent completes the recycling cycle where seven E-Cranes are in operation at four different locations.

- ❖ at Galloo's Halliun, France and Brugge, Belgium yards, scrap is offloaded from trucks and fed into a shear. The cut scrap is then loaded into small ships.

This is handled by 700 Series E-Crane model 6317 on crawlers (operational

since 2000) at the Halliun yard or a 1000 Series E-Crane model 7317 high gantry on rails (operational since 2005) at Galloo's Denolf Recycling in Brugge.

- ❖ on the quay at Van Heyghen in Ghent the new 2000 Series E-Crane unloads the ships from Brugge and Halliun. The scrap is then stockpiled by a 1000 Series E-Crane model 7317-GAE and a 2000 Series E-Crane model 21382-GAE.

- ❖ subsequently in Ghent the scrap is loaded into Handymax ships by the new 2000 Series E-Crane.

- ❖ the *Monica P.* sailed to her final destination at the Çolakoglu Metalurji steel mill in Turkey, where a 1500 Series E-Crane type 9317-GAE (operational since 2005) unloads the scrap into scrap baskets for transport to the mill.



This challenging project with seven E-Cranes used throughout the scrap recycling process demonstrates the versatility and flexibility E-Crane products can provide to clients worldwide. E-Crane's modular design concept allows E-Crane engineers to tailor custom solutions for customer needs, based on proven core components. Five different machine series are available based on capacity requirements: 700, 1000, 1500, 2000 and 3000. Within each series are models with different boom and stick configurations to suit outreach requirements. E-Crane's hydraulically pivoting, mechanically linked boom design keeps the machine in near perfect balance throughout its working range. Having gravity work for you instead of against you reduces horsepower requirements and power consumption up to 50%. DCi