

First Sandvik QI442 HS in China provides multifunctional solution

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Guangdong based Long Ying Construction Engineering Ltd has become the first customer in China to purchase **Sandvik** Mobile Crushers and Screens' revolutionary QI442 HS. This advanced HSI (Horizontal Shaft Impact) crusher is able to provide highly accurate material reduction at high rates of throughput. Additionally, through the use of Sandvik's advanced modular hanging screen, it is also able to produce up to three products where and when required.

Long Ying Construction Engineering Ltd has built up reputation for being a commercially astute operation in the Guangdong region of China in a relatively short period of time. It now services the requirements and needs of the local construction industry, operating in such diverse areas as demolition, construction machinery rental, civil engineering contracting, tunneling, landscaping and environmental engineering, as well as supplying aggregates arising from its multi-faceted operations.

The company now employs around 30 full time staff, and operates a full fleet of equipment comprising of 15 excavators, 5 wheel loaders, stationary trommel screens, 3 mobile crushing and screening trains and around 12 haulage trucks.

Despite having expert staff and a wide equipment array, the company's crushing and screening equipment was proving to be simply not up to the tasks at hand. The European and Chinese mobile plant it owned were proving not to be able to produce materials at the required throughput, were prone to breakdowns, with aftermarket support and spare parts often proving difficult to get hold of. In addition, if Long Ying wished to expand its operations throughout other parts of China, support and customer confidence would both be sadly lacking. In order to arrive at a modern, productive, environmentally friendly high status solution, Long Ying turned to a Chinese equipment dealer that has developed a first class reputation in China: POTA Environmental Technology (Guangdong) Co., Ltd.

Sandvik's Mobiles dealer in China

Sandvik Mobile Crushers and Screens authorized distributor, POTA Environmental Technology (Guangdong) Co., Ltd., not only acts as a supplier of high quality construction solutions. It has also developed a reputation for expertise in the use of advanced dust and exhaust gas treatment technology, solid waste recycling

technology and equipment for mining, municipal works and civil engineering. Hence, as part of its mission to provide professional solutions regarding environmental issues, the company acts as a highly proficient Sandvik distributor, supplying the full range of mobile crushing and screening services and support.

When contacted by Long Ying, and having gained an understanding of what solution the company was seeking, POTA recommended Sandvik Mobiles QI442 HS, one of its latest developments. This provided Long Ying with a mobile crushing and screening solution with the highest environmental credentials, as well as possessing features which would enable highly productive and profitable use. This requirement was based on crushing and screening mainly rocks, bricks, concrete and other materials arising from demolition and excavation projects the company undertakes. The combination of impact crusher with double deck hanging screen was seen as the ideal combination in order to produce aggregates for road construction as well as concrete and asphalt plants.

Expert advice built on a hard won reputation

POTA, and Sandvik Mobiles are both well known in Guangdong, with the former having a reputation as a highly reputable 'expert' company. Due to the well-known capabilities of the Sandvik crushers and screens, Long Ying was pleased to follow POTA's recommendations as it was very familiar with Sandvik.

The QI442 HS supplied to Long Ying comes equipped with a range of customer focused features designed to improve the return on investment and experience for the operator. A pre-screen is fitted to ensure maximum scalping capability and to prevent any undersize material passing through the impactor, maximizing throughput and reducing wear costs. This also allows a specific sized product to be produced from the natural fines conveyor. The pre-screen also has a choice of grizzly or punch plate top deck and mesh bottom, providing the flexibility to suit any application whilst an under pan feeder located beneath the impactor protects the main conveyor belt from the material exiting the impact crusher. The newly developed CI621 Prisec Impactor includes a new patented rotor locking and positioning device for controlled rotor movement during maintenance which enhances safety and meets legislation requirements. With a host of innovations for improved efficiency and greater safety during maintenance, the QI442 HS is able to operate in either primary or secondary crushing modes. Additionally, the two hydraulically assisted curtains can be readily adjusted to produce a wide range of high quality product sizes.

Crushing and screening in one unit

One of the benefits incorporated into the QI442 HS is the optional double-deck modular hanging screen system. This system is interchangeable and offers the flexibility for the crusher to operate in open or closed circuit. The unique design enables set-up in less than 30 minutes and can be fitted without the use of additional lifting equipment. The patent pending hanging screen option delivers multi-functionality as a 1, 2 or 3-way split screener, as well as a highly productive and efficient impact crusher. The double deck hanging screen enables the machine to produce two screened products and recirculate the oversize back into the feed conveyor. The oversize conveyor may be hydraulically rotated for material stockpiling (90°) of up to three products on the floor, or removal (180°). The tail section can be raised hydraulically to give improved ground clearance for transport when loading or unloading.

In addition to the other features found on the QI442 HS, it also comes with Sandvik My Fleet remote monitoring system as standard. My Fleet has been developed to help customers know exactly how their equipment is being utilized. Through the monitoring of a wide array of parameters, this facilitates accurate production forecasting, ensuring that the most efficient use is obtained from equipment, thereby maximizing return on investment.

Performance exceeds expectations

Long Ying is now using its state of the art crusher to crush mainly construction and demolition waste with a maximum feed size of 800mm, producing two core products: 0-10mm and 10-40mm, at an average production rate of 200tph. The latter figure, and given the 'difficult' nature of the material, exceeded Long Ying's expectations. Furthermore, although initial investment costs were higher for the QI442 HS when compared with local or other EU manufacturers, the total production cost proved to be significantly lower, making the return on investment attractive.

As to other benefits the company has enjoyed since beginning its working relationship with Sandvik Mobiles via POTA, Mr Zhang operations manager for Long Ying stated: "Our company would like to expand our business. We'd like to cooperate with Sandvik to have a national wide, full product lifecycle, comprehensive solutions in different applications support. We received excellent service from POTA from the very beginning: from the delivery of the machine, to commissioning and training of service and wear parts replacement, the POTA field engineer gave their full support until the machine was fully operational. We really appreciate the service."

As to the performance of the QI442 HS, Mr Zhang continued: "Sandvik equipment is world class quality, very stable, and we have experienced no downtime due to any failures. The machine is highly productive with a

good shape end product and low fuel consumption of 1.2 rmb/ton. The hanging screen solution means that only one machine is now required to do the job. In future projects, if we need more machines, definitely we will choose Sandvik due to good quality and production rates, dedicated, professional service and good parts supply.”

Source: Sandvik