NEWS RELEASE

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**Manitowoc MLC650 makes turbine installation a breeze on South Korean wind farm**

* *The crane is owned by Shinui Petra and comes with Manitowoc’s 3.5 m wide boom kit option – it is the first MLC650 outside of North America to utilize this performance-enhancing attachment.*
* *Due to difficult site conditions, no other crane could be used - with its VPC-MAX technology, the MLC 650 requires only 10% of the ground preparation compared with competitors.*

The first Manitowoc [MLC650](https://www.manitowoc.com/manitowoc/lattice-boom-crawler-cranes/mlc650-vpc-max) outside of North America to feature its 3.5 m-wide boom insert kit option has begun work on a large wind farm installation in southwestern South Korea. Owned by Shinui Petra, a leading equipment rental company and long-time Manitowoc customer, the crawler crane arrived at DaeMyung Energy’s mountaintop site in Hwasun-gun, Jeollanam-do on June 1. Main contractor [DongBang Co](https://www.linkedin.com/company/dongbang-engineering-and-construction-co-ltd). and sub-contractor Hanbit Wind Tower will keep the MLC650 busy on site until the end of this year. There are eleven 4.8 MW-capacity Siemens wind turbines to erect, requiring the installation of 85 t nacelles at 130 m heights.

Shinui Petra’s MLC650 is fitted with Manitowoc’s unique [VPC-MAX](https://www.manitowoc.com/company/news/manitowoc-mlc650-successfully-completes-vpc-max-testing) technology, which adds an extra 50 t of capacity to the standard crane’s 650 t. In addition, the 3.5 m wide boom option (which has 500 mm of extra width compared with standard sections) delivers an additional 30% gain in capacity. With this amount of lifting capacity, the secure handling of the large loads on the wind farm will be no problem. Furthermore, the design of Manitowoc’s Variable Position Counterweight system eliminates the need for counterweight on the carbody.

**The one and only**

While the MLC650’s unique benefits made it an obvious candidate for the wind farm project, the real clincher was its ability to perform required lifts in difficult site conditions, as Shinui Petra’s president and CEO, Choi Byung Eun explained.

“Limits from local government authorities meant the space on the jobsite to position the crane was strictly limited to 30 m x 50 m, to preserve surrounding trees and limit damage to the ground surface,” he said. “The only real competitor to the MLC650 needs a working radius of 44 m, which immediately ruled it out.”

A further complication on the project is the site’s steep, narrow, and winding access road. However, the MLC650’s optimized design and compact dimensions enable it to be transported in just 45 loads. The crane’s main boom was assembled in the air, while suspended above the inclined access road, with its four 3.5 m wide inserts quickly and securely aligning thanks to Manitowoc’s Fast Aligning Connection Technology (FACT Connectors) with hydraulically actuated pins.

“For these kinds of challenges, there is no other solution. Some of our customers will not consider anything other than the MLC650 because of its compact size and reduced impact on access roads and soil conditions,” said Choi. “Inland wind towers normally sit at the top of mountains where space is very tight, or near the coast where the soil is softer. The MLC650 produces less ground pressure because its weight is distributed through the crawlers as evenly as possible. Also, it only requires ground preparation within the perimeter of the tracks rather than across the entire swing radius, because the VPC-MAX remains suspended, so there are huge savings.”

Configured with a 146 m main boom, 7.6 m extended upper boom point and 400 t of counterweight, the crane is mostly working at a 28 m radius. Manitowoc's local office in Korea is providing close engineering and technical support to Shinui Petra as well as on-site expertise when required due to the size and frequent exposure of the jobsite to high wind speeds.

The Hwasun-gun windfarm is the third jobsite where the 3.5 m boom kit was used since Shinui Petra acquired the MLC650 in 2016; the [first](https://www.manitowoc.com/company/news/shinui-petra-takes-south-koreas-first-mlc650-crawler-crane) to arrive in the country. It is a particularly useful option for projects requiring long boom plus luffing jib configurations. The kit enables the crane to complete more demanding jobs from the same compact footprint but without increasing setup time or cost.

**Preference for high performance**

Shinui Petra has a strong preference for Manitowoc’s crawler cranes, also owning one [MLC165](https://www.manitowoc.com/manitowoc/lattice-boom-crawler-cranes/mlc165-1) and four Model [12000](https://www.manitowoc.com/manitowoc/lattice-boom-crawler-cranes/12000-1) cranes. The company also has seven Potain luffing jib cranes: three [MR 608](https://www.manitowoc.com/potain/top-slewing-cranes/mr-608) units and four [MCR 225](https://www.manitowoc.com/potain/top-slewing-cranes-asia/mcr-225a) units.

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| Social media caption |
| South Korea’s first Manitowoc MLC650 is building another wind farm, this time using the 3.5 m boom-insert kit for higher capacity. Literally, no other crane would be capable to do. Read more here [LINK].  |

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ABOUT THE MANITOWOC COMPANY, INC.

The Manitowoc Company, Inc. was founded in 1902 and has over a 120-year tradition of providing high-quality, customer-focused products and support services to its markets. Manitowoc is one of the world's leading providers of engineered lifting solutions. Manitowoc, through its wholly-owned subsidiaries, designs, manufactures, markets, and supports comprehensive product lines of mobile hydraulic cranes, lattice-boom crawler cranes, boom trucks, and tower cranes under the Aspen Equipment, Grove, Manitowoc, MGX Equipment Services, National Crane, Potain, and Shuttlelift brand names.

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