

Buckner's Liebherr crawler cranes building the giant roof structure over the largest tennis stadium in the world

- One Liebherr LR 11000 crawler crane and two LR 1600/2 owned by Buckner were on a job in New York for ten months
- The crawler cranes built the steel structure to form the roof for the Arthur Ashe Stadium
- Liebherr cranes impress with compact dimensions, low ground bearing pressures and reliability

Ehingen / Donau (Germany), September 2015 – The Arthur Ashe Stadium in New York is the largest tennis stadium in the world and the venue for the US Open. The stadium is now getting a retractable roof to avoid the frequent match postponements at the US Open caused by rain. Over a period of ten months, a Liebherr LR 11000 crawler crane and two LR 1600/2 operated by American crane contractor Buckner HeavyLift Cranes have been putting the steel structure for the roof in place.

The three heavy duty cranes were on site from October 2014 to July 2015 to complete their work on the roof structure so that the US Open 2015 can be held in its familiar surroundings in September. The construction work will then continue after this major international tournament has ended. The retractable roof is due to be completed in 2017. An LR 1600/2 from Buckner will be back at work on the site for around four months starting in October.

The route to a roof for the Arthur Ashe Stadium has been a long-winded one. For ten years the US Tennis Association (USTA) had been looking for a solution that was both affordable and logistically possible and also satisfied the architectural requirements. The stability of the foundation soil also caused problems.

The Liebherr crawler cranes were a central feature of the planning and building of the structure. The space available at the stadium is very constricted. "The site was logistically challenging. A great deal of planning was required just for the assembly and disassembly of the cranes. Liebherr LR 11000 and LR 1600/2 crawler cranes feature

an efficient erection process and short set-up times. That, of course, helps to keep costs down", reports Kevin C Long, Project Manager at Buckner HeavyLift Cranes. In addition two Liebherr LR 1200 cranes and an LTM 1220-5.2 from crane hire company Bay Crane Service were on site for use as auxiliary cranes.

The restricted space also caused difficulties for planning the various hoists. The extremely compact design of the LR 11000 paid great dividends in this respect. The infinitely adjustable ballast tray on the 1,000 tonne machine can be moved to a minimum of 12 m to the basic machine which is an excellent value for this load capacity class. The two LR 1600/2 cranes also achieved high lifting capacities despite their compact dimensions.

One of the other problems encountered when planning the project was the strength of the foundation soil. "The maximum ground bearing pressure on site was our main concern", says Kevin C Long. "But the Liebherr crawler cranes offer far better ground bearing pressures than the other cranes we considered. At the same time they also provide the lifting capacities and radii we needed. That meant that the cranes did not have to be moved so often which enabled us to save a good deal of time and money."

After completing this project the Buckner team looked back at a successful job completed: "The Liebherr crawler cranes performed extremely well throughout the project. During the winter months we had to struggle with extreme weather conditions but the cranes continued to be reliable through very low temperatures."

Buckner HeavyLift Cranes based in Graham in North Carolina is very keen on the Liebherr brand, particularly when it comes to heavy duty cranes. Kevin C Long explains why: "We prefer Liebherr cranes simply because of their quality. Both their design and production quality are better than other manufacturers." Buckner has been completing heavy lift projects of all kinds for 65 years and is one of the largest crane contractors in the USA.

Caption

liebherr-lr-crawler-cranes-buckner-stadium.jpg:

One LR 11000 and two LR 1600/2 cranes erect the steel structure for the roof on the Arthur Ashe Stadium in New York.

liebherr-lr-crawler-cranes-buckner-skyline.jpg:

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