

# Huge beasts

The market for super heavy lift cranes continues to exceed expectations.

In the crane industry, super heavy lift cranes get a lot of attention. While the average crane owner does not need a crane that can lift in excess of 1,000 tons, much less 7,500 tons, the idea of a crane lifting this much weight is awe inspiring.

Interestingly, the market for cranes in this sector – those that can lift from 3,000 to 7,500 tons – is robust, with several companies around the world producing these cranes. For the most part, demand for these cranes is project driven, with nuclear power plants, refineries and other industrial applications driving the market. Mammoet, Sarens, Bigge and others in this market appear to have their calendars filled with work stretching into 2015 for these cranes.

The Lampson International Transi-Lift revolutionized the use of super heavy lift cranes in the construction industry by introducing the “over the top” method of lifting. Lampson has a new Transi-Lift model in production, the Transi-Lift LTL-3000. It features joy stick controls in the cab, hydraulic hoisting capabilities, a newly designed enclosed engine compartment, a 3,000-ton front crawler giving the crane 33 percent larger crawler capacity, a larger boom cross section at 16 x 20 feet and an increase from 1 ½ inch diameter wire rope to 2-inch wire rope.

Liebherr's largest heavy lifter is the LR-13000, a 3,300-ton capacity crawler. The LR 13000 recently completed its inaugural project at a petroleum refinery in Indiana.

Terex has plenty of experience in the super heavy lift realm, according to Rudiger Zollondz, product marketing

**The Lampson International Transi-Lift has been a mainstay in the super heavy lift market for more than 30 years. Lampson recently produced and tested its newest model, the LTL-3000.**

director, and one of the engineers that designed the Terex TWIN model. The Terex CC 8800-1 TWIN, which was introduced in 2007, is a beast of a crane, with a 3,520 ton capacity.

## Record lifts

Bigge Crane & Rigging entered the super crane market in 2012 with its AFRD, which the company claims is the world's largest capacity crane at radius. The AFRD has a 7,500-ton capacity with 300-feet of main boom and a 4,000-ton capacity with 560 feet of main boom. Fixed jibs are available in excess of 1,000-ton capacity on 200 feet of length.

Mammoet Vice President Guus Stigter said the market for his company's PTC cranes is strong.

“We have one PTC 140 working at an offshore fabricating yard in Ingleside, TX,” he said. “It has been erecting sections of an offshore spar, with each section weighing about 2,500 to 2,800 tons.”

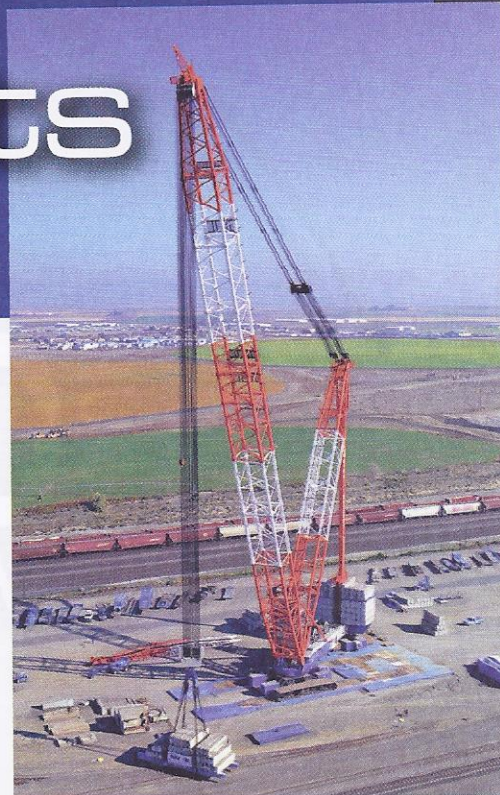
The PTC 140 has a lifting capacity of 3,500 tons.

ALE entered the super heavy lift market in 2008 when it launched the SK190. The crane has the capacity to lift approximately 4,816 tons and can be relocated on site fully rigged. In 2012, ALE announced it would build a 5,600-ton capacity (5,000 metric ton) SK350 to support construction work at an industrial project in Brazil. An

upgraded version of the SK190, the SK350 was designed using a 5,000 ton capacity strand jack system and a 2,000-ton capacity winch system.

In 2012, Sarens International introduced the SGC-120. The crane has a lifting capacity of 3,200 metric tons at 30 meters and 1,000 tons at 80 meters. It features a ring design with a limited footprint, low ground bearing pressures and was designed for flexible worldwide transportation in standard shipping containers.

The lead time to build these super big cranes is between three to four years, so there are many issues that can arise with a project before the crane is completed. For instance, the Japanese nuclear disaster put a stop to many contracts which contractors were gearing up for. Plus, testing and getting these heavy lift giants certified also takes a lot of time, effort and money. ■



## MEGA CRANES

Manufacturer	Model	Maximum Load @ 40m (t)	Load at Maximum Radius (t@m)	Maximum Hook Height (m)	Boom Length Minimum/Maximum (m/m)	Capacity Metric Tons	Capacity US Tons
Lampson	LTL-3000	2721	279 @ 140.2	142.3	67.0/140.2	2,721	3,000
Liebherr	LR 13000	3000@12	42@196	245	60/144	2,993	3,300
Terex	CC 8800-1 Twin	3200	123@129	222	54 / 234	3,197	3,520
Sarens	SGC-120	3,150	150t @ 200m	212m (with fixed jib)	89m minimum	3,150	3,465
Mammoet	PTC 140 DS	3500	n/s	n/s	n/s	n/s	3,500
ALE	SK-190	5,000	n/s	n/s	n/s	5000	6,000
Bigge	Bigge145D	6820	390t @ 203m	220m (with fixed jib)	91m minimum	6820	7,500
Bigge	Bigge160D	6820	545t @ 203m	220m (with fixed jib)	91m minimum	6820	7,500