

Off the Waterfront... *Rigging International Builds World Largest Crane*

The Sarens Group of Wolveterm, Belgium is pleased and proud to introduce the SGC-120 Crane. This innovative and versatile Heavy Lift Crane System is the product of the combined engineering efforts of Sarens and its newest group member, Rigging International of Alameda, California, a Signal Member.

The SGC-120 crane is billed as the new standard in super-heavy lifting, and the thing itself is super heavy - 7 million pounds of steel. Also included in the extensive list of building materials is 5 miles of thick wiring; one foot weighs 9 pounds. Even the bolts that hold the machine together are heavy; most weigh no less than 5 pounds. The crane's boom is 428 feet long, making it as tall as a 40-story building. When you talk about this crane, you talk in tons. Its ground-breaking design allows it to reach new heights and carry up to 3,200 metric tons, but it can also be broken down and shipped anywhere in the world in standard containers (about 135 of them).

The Missoula engineers work for Rigging International, which was acquired in 2009 by Sarens Group, headquartered in Belgium. The international company, which specializes in handling heavy goods and transportation, had both the interest and the money necessary to take the crane from the drawing table to the work site. Joel Lavering was lead engineer on the project, and he's considered the father of the project, having begun work on its design many years ago in his Missoula office.

Most of the project's groundbreaking features were conceived by Lavering, who guided the team through its work once the project was greenlighted by Sarens. The process tested the limits of nearly everything and everyone involved, from the strength of steel to the team's brain power, which ebbed and flowed during the 17-month project. The pressure was intense, but the recent load testing proved the big crane can do the job. "Our philosophy around here is that you do everything you can to prevent any worry or anxiety when you go to use the equipment," Lavering said.

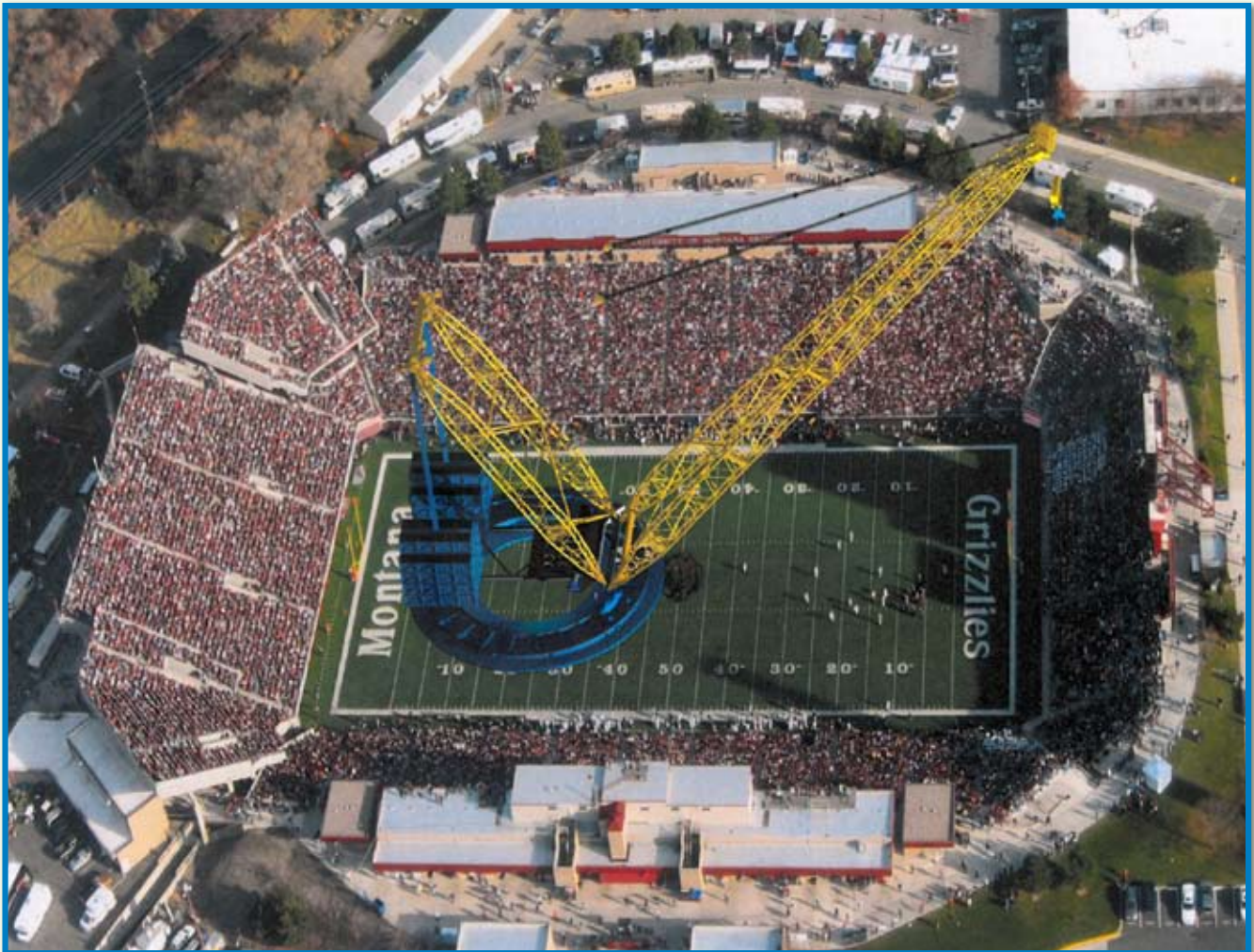
During an emergency stop test, co-worker and engineer Crawford stood on the crane's mechanical deck monitoring the progress of one of the largest test loads. When the electrical wires were suddenly pulled, stopping the load abruptly, "the load out there only wavered this much, only about 2 inches," Lavering said. Crawford said he'd looked away for a moment but felt almost no vibrations from the emergency stop. That's almost unheard of, and signaled the sturdy power and top quality design of the crane. "It really gives me a sense of pride to know we were at the cutting edge of technology in engineering. A lot of it had to do with Joel's vision," Crawford said.



The huge crane will change the way some large-scale assembly is done. Take, for instance the gigantic, half coke drums that recently rolled through Missoula. The SGC-120 could handle those half drums with no problem. The crane will also be used to tear down structures in larger sections, cutting down on both danger and cleanup at sites. When attached, the crane's jig can reach almost two football fields from its platform. There's already interest in the crane's services, and the Sarens sales team is currently booking the crane for jobs around the world.

To envision the crane's size, imagine that it was placed inside Washington-Grizzly Stadium. There, its ring platform would stretch from one end zone to the 45-yard line, and cover most of the field's width. At 300 feet in the air, its boom tip tip would dangle over the opposite end zone's bleacher, and its jig could easily grab a beer from a tailgater or perhaps pluck a kayaker out of the Clark Fork River.

But while it's fun to imagine the crane in the stadium, it's improbable - although the crane is booked for work in North America, the team that designed it said it's unlikely to make a Montana appearance.



www.sarens.com

www.rigginginternational.com

Source: The Missoulian, Staff Writer Jenna Cederberg

nothing too heavy, nothing too high