

By Michael Harrison Jr.

# Stick with Smaller Self Erectors

## Heavy-lifter class is dead on arrival

I had to snicker when reading the article about the new, large self erectors coming to market (*Crane Hot Line*, October 2010, page 12), including 6 metric-ton models from Koenig, San Marco, Terex, Manitowoc, and Liebherr. Over the last several years, manufacturers and, in turn, the media have been touting the merits of self-erecting cranes. Unfortunately, I believe the manufacturers have totally missed the mark with the heavy-lifter class of self erectors.

I arrive at my shop, greeted everyday by the fading red paint and hulking image of our Potain HDT 80, which has been parked against the fence for nearly two years. Several years ago we bought into the hype and purchased this self erector. Looking back, I think the crane was busy simply because there was so much work, and contractors had to find a crane, any crane, to put on their jobs. At first we were zealous proponents of the equipment, but now the shine is off the apple, and we have very serious questions about the viability of the large, self-erector segment.

I know that lots of cranes have been underutilized over the past two years. You may be thinking that just because our lone

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self erector has been parked for this duration doesn't mean that the death knell is ringing for the entire class. While it is true that economic factors have made the outlook for them bleaker, the problem goes deeper than current economic conditions. There are

just too many other types of cranes that compete for the same jobs. On a typical project, we may be bidding against any of the following cranes:

- Traditional tower cranes (city class or full size)
- 1970s-era GCI mobile tower cranes
- 1960s- or 1970s-era truck-mounted tower cranes, such as Lorain MC 790 lattice-boom truck cranes or Link-Belt 108 crawlers
- Modern crawler cranes from Kobelco, Link-Belt, and Manitowoc in luffing configuration
- Truck-mounted hydraulic cranes



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I'm convinced this is a familiar problem for owners of the large self-erectors, no matter your region. All of these competing crane types have either a cost or capability advantage over the large self erector. That one job that can only be done with a self erector just does not come around often enough, and competitive factors often tilt the scales in favor of other kinds of cranes.

### Outside pressure

The huge glut of traditional tower cranes currently in the market allows contractors to rent a full-size tower crane for about the same amount of money as our self erector. When a traditional tower crane generally offers longer jib lengths and greater capacities, what contractor is going to choose the self erector? This supply imbalance weighs heavily on the prospects for large self erectors. Given that future demand looks dubious at best, it may be quite some time before this pressure abates.

The emergence of city-class tower cranes is another nail in the coffin for large self erectors. When we purchased our self erector, the city-class towers had not made inroads yet in South Florida. Since then, we've started seeing them in our local market and have even assisted in their erection, which by the way, only took about one day. While manufacturers' literature for self erectors would lead you to believe otherwise, a day is about what it takes to get our HDT 80 erected as well. In fact, calling them self erectors is a bit of a misnomer. We have yet to find a job where the self-derricking counterweight feature can be utilized, and we typically have to have a 30-ton telescopic truck crane to assist. Most city class towers can be erected with a 70-ton mobile crane. If the necessary erection time and assist equipment are about the same and capacities are comparable to self erectors, then the lower initial cost of a city-class tower crane makes it an attractive option. Utilizing the non-freestanding configurations available on many models gives them more flexibility.

### Admittedly amazing

Large self erectors are unquestionably amazing machines. Watching them unfurl is captivating in a sort of Rube Goldberg or Transformer sort of way, and once they are setup they live up to their billing. It seems, however, that the odds of success are stacked against them. For some additional perspective on the issue, however, I emailed Giovanni Mitti with Mitti Gru in Italy. This company has specialized in the sales and service of self erectors and other tower cranes since the early 1960s. Mitti's commentary

provides valuable insight into the European market, as well as where the North America market is headed. Mitti concurred that the large self-erector class faces an uphill battle. He said:

*"Those huge self-erectors are useless for me. If a company wants a big crane, then it is much cheaper to use city tower cranes. They have a much longer jib (up to 80-85 meters), higher max and tip load, and can go much higher (up to 100 meters freestanding and without limit if anchored to building). They also have a large cost advantage. A new city tower may cost half as much as a new large self erector.*

*"In Italy, the largest self erector we'll use is one with a 40-meter jib. After that size, companies buy city class towers. City cranes are easier and faster to erect than self erectors in that size. We can erect a city crane with 52-meter jib and 40 meters high on a cross base in seven to eight hours.*

*"Another key difference—self erectors take up quite a bit of room getting into the job while in the horizontal position on the transport dollies (approximately 13 to 15 meters), while city class cranes only take the room for the cross base (3.8 m x 3.8 m or slightly more).*

*"Those bigger self-erecting cranes are used more in countries where they don't have a lot of mobile cranes available with 50 to 60 meters high reach, which is needed for erecting a 40 meter-high city crane."*

So it seems large self erectors are also less popular in Europe. However, the one class that seems to keep growing is the ultra-

mobile truck-mounted segment with cranes like those from Spierings and Liebherr. Contrary to the claims made by some manufacturers, these machines are the largest self-erecting towers in the world and can set up in a fraction of the time of their fixed-base counterparts. The problem with them is that they are heavy and, in general, do not meet demanding U.S. axle-weight requirements. Although they're more expensive, if they could be made to be road legal, I think there would be a robust taxi-crane market for them. Back in 2003, I personally felt Manitowoc was onto something with its ill-fated S-282 Potain project. This machine married a boom-truck chassis with a self-erecting tower, and might have found a ready market if the timing had been better, if it had been designed with a longer tower (54-foot under hook height was too limited), and if it had a better price point.

I believe traditional self erectors will only become an entrenched part of the cranescape in North America if manufacturers realize that the market lies more with the smaller self erectors. The North American market places a premium on mobility and agility, and large self erectors get low marks in both categories. However, the smaller models, like those in the 2- to 4.4-ton range, including the Potain Igo series, excel in these categories.

In short, given competition from other crane classes, the emergence of the city-class towers, and the large population of available tower cranes, I see the large self-erector category losing what little traction it had and being relegated to a small, niche segment of the market. ■

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