Case Study: Mobile Gantry Operators Experience Improved Visibility and Better Jobsite Communication with HoistCam Camera

The Customer
CJ Mahan Construction, a heavy-civil and marine contractor on infrastructure projects east of the Mississippi River, has a fleet of nine Mi-Jack Travelift rubber-tire gantry cranes, including a 100-ton MJ100. The Travelift gantries are used to lift Conex containers, construction equipment, concrete barrier walls—anything less than 100 tons—in a construction yard. The contractor utilizes several Netarus HoistCam wireless camera devices to improve visibility during operations. “A lot of Travelifts serve as bridge beams in their own yard,” explained Neil Eddington, principal.

The Problem
Visibility is the biggest challenge on a construction site. “A gantry crane operator needs to see where the crane tires are tracking when he’s moving with a load around a structure that’s blocking his visibility. Especially on blind picks and blind sets of the load, visibility is critical to safety and success on the job,” says Eddington.

Before choosing the HoistCam wireless camera system, C.J. Mahan crews communicated via radio. “We relied on voice communication, with spotters on the ground, explains Eddington.

The Solution
At the end of the spreader bar attached to the hook, a HoistCam Model HC120 or HC140 wireless camera system is mounted on each corner. An antenna is fed down the Mi-Jack gantry crane arm to the cab. Power is drawn from a solar panel 12-volt DC power course in the center of the spreader bar. As an alternative a 12-volt battery pack can be used. Two wired HoistCam cameras, equipped with 250 feet of cable, are mounted over the rubber tires to monitor tire position.

With the HoistCam wireless system, the operator can see exactly what’s going on, which will heighten the level of safety on the job, explains Eddington: “He can see where everyone’s at or where everything is located within his blind spot, so he’s not operating the crane with someone in harm’s way. The signalperson on the ground can get in front of a camera and give the operator signals so he can see from the cab without the ground guy being in his line of site.”

The wireless camera system has not only improved visibility but has sped up communication on the jobsite, says Eddington. Crews still use radios to communicate, but the HoistCam product creates a safer environment, and makes jobs more efficient, he says.
The HoistCam wireless camera is maintenance-free and a very tough product. It’s very well-designed around its true use, to make the operator’s job easier and more efficient, says Eddington. He adds that in addition to efficiency, the HoistCam product improves safety, saves time, and increases productivity for his staff.

The solution in action
“We utilize from four to six devices on a gantry crane, but the HoistCam wireless cameras can be tailored to wherever you need visibility when operating a crane,” explains Eddington. Once the controls and screen are mounted in the cab, the wireless cameras themselves have the flexibility to be moved around and mounted where they may be needed from job to job. A camera can be placed on the block where the operator can see where he’s picking, or on a bracket that may be located in a blind spot. It can be mounted on top of the machine for a bird’s-eye view of the whole jobsite. “You can mount it anywhere the operator doesn’t have a clear line of site to allow him so he can see things first-hand instead of going through a ground person, signaling to him where to place the load,” says Eddington.

About Netarus and HoistCam
Netarus manufactures and sells industrial-grade video monitoring solutions which improves employee productivity and workplace safety in the construction, industrial, marine and transportation industries. HoistCam™, a rapidly deployable wireless camera system, places the eyes of the crane operator anywhere on the job. The HoistCam platform suite provides remote monitoring, recording and management analytics reporting to operators and site supervisors. www.hoistcam.com

Photos continue on the next page...
Poor visibility creates the biggest challenge for operators of rubber tire gantries handling containers in a yard.
Gantry2.jpg] HoistCam cameras mounted on each corner of a spreader bar help the operator see where the gantry’s tires are tracking when the load blocks direct line of sight.
CJ Mahan operators use HoistCam cameras in combination with information from signalpersons on the ground which has sped up communication on the job site.