



# BLUETOOTH TAGS ZERO OUT TOOL LOSS ON MEGAPROJECT

**A managed tool trailer and tool tracking system helped a subcontractor come in under tool budget.**

A mechanical subcontractor working on the construction of a \$5.8 billion electric vehicle battery plant in Kentucky sought to keep its tool budget under control while ensuring that workers could immediately access any tools they needed. They also hoped to reduce the cost of lost or stolen tools, not an easy task on a project spread over 1,500 acres.

United Rentals provided a solution in the form of a managed tool trailer stocked with tools affixed with Bluetooth tags.

## Custom stocked managed tool trailer

The subcontractor had used United Rentals' managed tool trailers on smaller projects, so when it won this mega project, it turned to the company again. They knew they would eventually require tooling for up to 500 workers, but they couldn't accurately predict how many tools they would need, which tools, or when. The project site was remote, so running out to buy additional drills or carts wasn't a viable option.

At the customer's request, United Rentals custom stocked a 53-foot tool trailer with all the tools the customer would require at peak. Bluetooth tags were affixed to all the tools, from drills and sledgehammers to ladders and carts. A tool trailer

coordinator from United Rentals checked out the tool by scanning the barcode associated with the tool as well as a barcode on the worker's helmet.

When the subcontractor moved from a one-shift schedule to a two-shift schedule, United Rentals provided an additional tool trailer manager to keep the trailer open during the second shift.

## Consumption management reduced rental costs

The system provided clear visibility into tool utilization, which enabled consumption management.

"If they weren't utilizing 20% of what they thought they would need, we could take those tools off rent but not necessarily off site," said Candice De Melo, United Rentals regional project development manager. "Flexibility was key, allowing for seamless adjustments to inventory as needed to stay within budget constraints."

United Rentals sent out monthly KPI reports to the project superintendent and project managers, along with suggestions for further reducing tool spend. Weekly reports were sent to project foremen identifying which tools different groups were using and who had signed them out. If



workers had specific tools out for a long period or had signed out duplicate tools, their supervisor could contact them and ask them to return tools they weren't using.

### **Boosting worker accountability**

The barcode system made workers personally accountable for the tools they used. As a result, they were less likely to check out duplicate tools. It also prevented workers from other companies from gaining access to them.

De Melo compared tool tracking to red light cameras. If people know there's a camera at an intersection, they're less likely to run a red light. If workers know that someone is monitoring their tool usage, they're more likely to return the tool promptly.

On projects such as this, tool loss costs amount to 32% of the original equipment cost on average. With a United Rentals managed tool trailer, that number typically shrinks to less than 5%. On this project, the customer did even better, reducing tool loss to 0%. Bluetooth location tracking largely explained the difference.

### **Locating tools with GPS**

On a massive project, it's easy for tools to go missing, even with the best of intentions. That's where Bluetooth comes in. The Bluetooth tags pinged the GPS-enabled telematics devices placed on construction equipment throughout the jobsite. The tool location data was then

sent to Total Control®, United Rentals' worksite management platform. Both the customer and United Rentals could view on an interactive map a tool's most recent position and who checked it out.

When the project was finished, United Rentals used the map to identify the location of 110 tools that had not been returned. The customer was then able to quickly collect and return them.

### **An impressive outcome**

The subcontractor spent only 94% of its tool budget.

"Achieving a remarkable 94% adherence to budget while maintaining a perfect record of zero lost tools is an exceptional accomplishment, particularly on a project of such magnitude," said De Melo. "This level of performance is truly unprecedented and speaks volumes about United Rentals' commitment to excellence."

The customer intends to use the solution on future projects. The general contractor was also impressed and asked United Rentals about setting up a similar system for its daily tool needs.

De Melo believes that contractors on all size projects will soon be making that same request. "I think 100% of them will want to choose United Rentals' managed tool trailer and Bluetooth tool tracking because it can add value to projects of any size."