



Voice-Enabled
Maintenance & Inspection

LiuGong Cuts Machine Inspection Time by Half Thanks to Voice-Enabled Solution from Dakota

The Company

With a history spanning 65 years following its inception in 1958, Guangxi LiuGong Machinery Co. Ltd. has established itself as one of the worldwide leaders in construction & earthmoving machinery manufacture. Having developed the first modernised wheel loader in China in 1966, LiuGong has expanded its product range to encompass 19 top-of-the-range product lines which it proudly showcases today.

Boasting 20 manufacturing facilities, over 17,000 employees, 5 research and development bases and 17 regional parts centres worldwide, LiuGong's keen focus on quality and the ability to get the job done has made the brand synonymous with reliability, whilst ensuring that the business remains at the very forefront of technology, production and supply logistics.

With the streamlining of efficiencies being a primary component in the company's agenda and a keen corresponding desire to reduce its machine inspection time at its site in Portsmouth, the company turned to Dakota to integrate its revolutionary Voice-Directed Maintenance and Inspection Solution into the business.



Voice-Directed
Technology



Language Support:
English > Chinese



Increased Worker
Productivity



Full Compliance with
Industry Standards



The Problem

With over 500 machines being inspected at LiuGong's Portsmouth site every year, the company was keen to reduce the time it took to inspect each item – typically 90 minutes on average.

Steven Ford, Managing Director at LiuGong UK comments, *“With 600 plus machines entering our site premises every year for receiving, pre-delivery & final inspections, it was essential that we looked to evaluate our inspection time and try to reduce it. The inspection time for each item can be anything up to 90 minutes, so the ability to be able to reduce this was of paramount importance. We also wanted to ensure that all the information retrieved from each inspection was accurate and adhered to industry compliance standards. In addition, we need to keep our workers safe. Clambering onto and around the machines whilst holding a clipboard and a check sheet was far from ideal, so we had quite a specific list of key elements which we wanted to improve upon within our inspection processes and techniques, along with achieving a more streamlined approach to sending precise and timely inspection reports back to our company headquarters in China.”*

The Solution

Underpinned by Honeywell Voice Technology, Dakota's Maintenance and Inspection Solution enables the inspector to speak into the headset and follow a series of prompts from the system which guides the user through the entire inspection report required for each machine item. The system also prompts the inspector when to take photographs to support the information included within the report.

When the inspection is finished, the inspector can check the report on the screen and make any adjustments if required. In simple terms, the solution takes the 'spoken word' and produces the written report with photos attached.

Philip Jarrett, Commercial Director at Dakota comments, *“Voice-directed data capture solutions are fast becoming a popular choice within a variety of maintenance and inspection environments within industries such as automotive, rail and aerospace. We supply solutions that are purpose-built for the maintenance and inspection marketplace, empowering companies to run a better and more compliant business with voice, offering a viable alternative to more traditional pen and paper documentation methods thanks to prompts being delivered and operator responses provided through the spoken word.”*



The solution also has the ability to translate the report into any language, enabling the team at LiuGong UK to translate the receiving inspection report into Chinese to send to the factory headquarters in China.

Philip Jarrett continues, *“The advantages of voice-enabling maintenance and inspection processes are wide-ranging; so much so, that a rapid return-on-investment is achievable. It also allows businesses to elevate their documentation and compliance to levels never-before attainable, as well as connecting their people, assets and data, achieve real-time operational visibility and vastly increase accuracy, efficiency, productivity and ultimately profitability.”*

The Result

The new solution has allowed LiuGong to voice-enable its ‘pre-shipped’ and ‘receiving’ inspection processes and will help the business to achieve significant time and costs savings throughout its overall manufacturing and distribution procedures. Workers are able to operate ‘hands free,’ enabling them to have the use of both hands when climbing onto and around the machines to complete their inspections, the time for which has been reduced by a staggering 50% to just 45 minutes per item.

Written reports for each inspection are also available in real-time thanks to direct communication with the host system, making them immediately available for despatch to the Chinese headquarters and reducing back and forth data entry and associated human error within the inspections and reports themselves.

Steven Ford concludes, *“In the initial stages of the project, the team at Dakota really took the time to understand our business and its pain points, providing compelling and factual evidence to prove to us how their voice-directed solution could alleviate these issues.*

We are delighted to have worked alongside Dakota and their partners Mountain Leverage on this exciting, revolutionary and forward-thinking voice-enabled maintenance and inspection project. Not only have inspection times been halved and our workers are now much safer, and we have also achieved a streamlined method of sending timely and accurate inspection reports back to China, as well as ensuring 100% compliance with industry standards. The far-reaching benefits of voice mean that the system has basically paid for itself.

Voice-enabling our ‘pre-shipped’ and ‘receiving’ inspection processes is just the beginning and we are very much looking forward to working with both Dakota and Mountain Leverage to further develop the solution in terms of expanding the number of voice-enabled workflows to include PDI inspections, the final inspections of machines prior to delivery to customers as well as for used machine inspections for trade-in valuations. We are also looking to broaden the solution geographically to cover our European and ultimately our worldwide operations in the future.”



Get in touch:

Dakota Integrated Solutions
Integration House
10 Mercury Way
Mercury Park
Manchester
M41 7LY

Find us on:

 [dakota-integrated-solutions](#)

Learn more:

For more information about voice solutions from Dakota, visit: dakotais.co.uk/voice



See voice-enabled maintenance & inspection in action: dakotais.co.uk/videos



Honeywell



©06.2023
Dakota Integrated Solutions Ltd.
All trademarks are the property of their respective owners.