CASHMAN **CAT®**

Cashman Equipment Company

Designing a Fully Traceable Rebuild Process to Provide Comprehensive Data Visibility, Ensure Quality Outcomes and Detect Actionable Key Performance Indicators

Cashman Equipment is the Caterpillar equipment dealer in the state of Nevada and parts of California. The company provides new and used equipment for sale and rental as well as high-quality parts and services to the construction, mining, energy, paving, power, and truck engine industries. One of the many services offered by Cashman dealerships is main component rebuild. A "main component" refers to engines, torque converters, differentials, braking systems and any large machine components.

Krinkle
Rebuild Tracker

Client:
Cashman Equipment Company

Challenge:
Transitioning away from tracking the rebuild process manually to speed up work and ensure quality outcomes

Solution:
Using mobile apps and barcodes to collect actionable data and provide ample data visibility

Rebuilding The Rebuild Process

Before Cashman discovered and implemented **Krinkle's Rebuild Tracker®** technology, Cashman had the same issues that all Component Rebuild Centers (CRCs) have when trying to keep up using paper-based documentation. When CAT equipment needed to be rebuilt, its main components were sent to an authorized CAT CRC. Upon arrival, these main components were broken down into what we call "subcomponents" (individual parts of pallets, gear trees full of gears, parts baskets, etc.) and then moved around an enormous rebuild center to be cleaned, disassembled, inspected part-by-part, reassembled, dyno tested and so on. Keeping track of every stage completed and every location of every individual "subcomponent" on paper was an inefficient, time-consuming and error-prone process. Once all the parts that were stored after they were serviced to meet the quality standard, they needed to be located (using paper records!), brought out of their temporary storage locations, and reassembled for final dynamometer testing, painting, final shipping, etc. Overall, this process typically includes over 40 different stages, all of which have to be tracked for every gear tree, parts basket, test, pallet holding a giant part (like an engine housing) and so on! This original manual and paper-based process was daunting and rife with errors and missing information.

This was Cashman's tracking system in 2015:
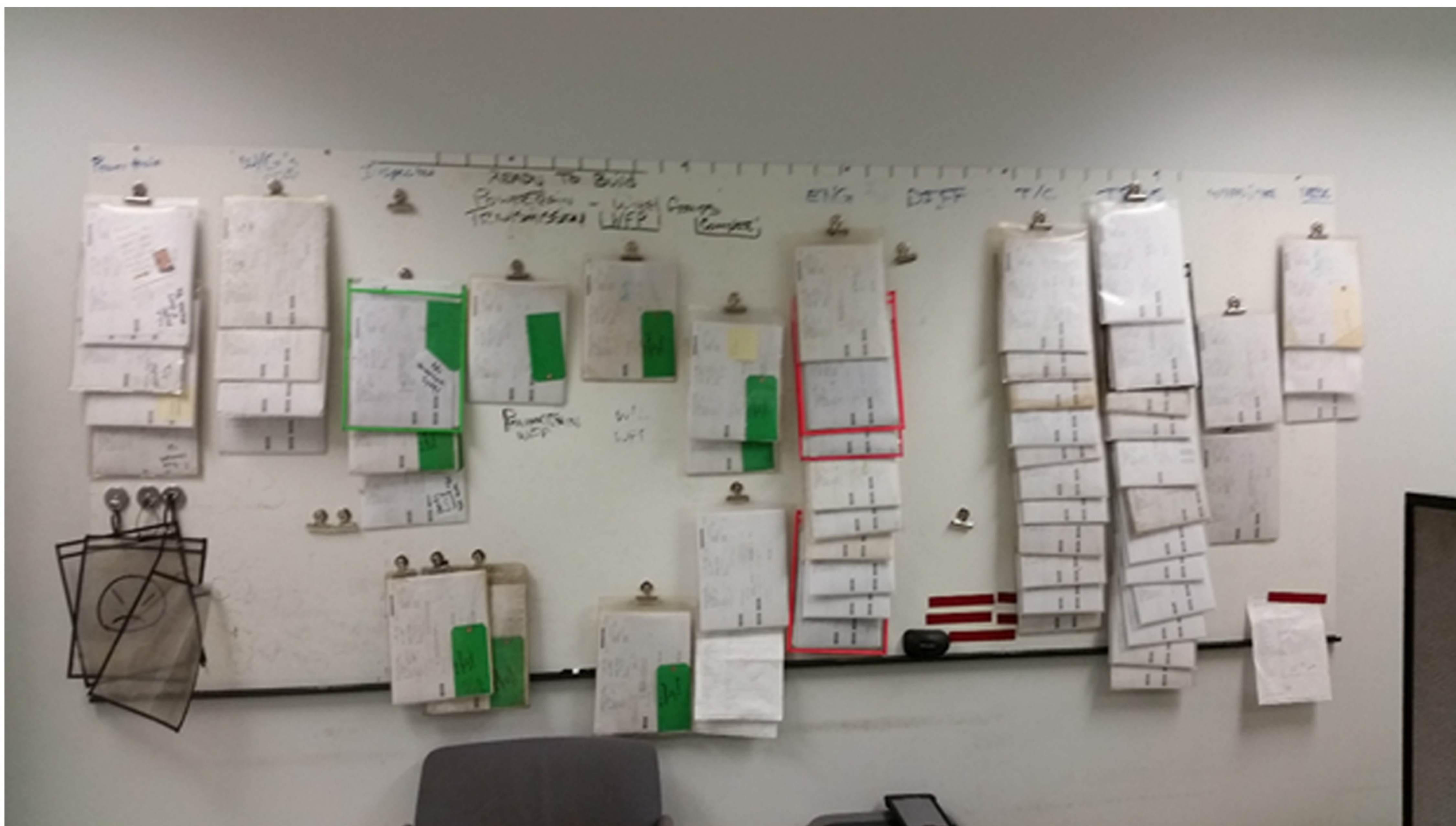
They knew this system could not hold up to the growth they were experiencing and the excellence they demanded from their staff. They needed a true digital transformation.

The rebuild process, and the time it takes to complete it properly, is critical in maintaining the machinery that are owned by Cashman's clients and critical to the CRC's reputation and bottom line. However, they knew that their existing rebuild process needed to be tracked more effectively so they could analyze any unnecessary slowdowns and implement a more robust Continuous Improvement Program (CIP). As it stood in 2015, and at their growth rate, gathering real Key Performance Indicators (KPIs) out of their CRC was becoming too labor-intensive and increasingly impossible to get accurate.

Cashman understood their business needs and those of their clients and wanted to provide regular updates to keep both their management and equipment owners informed in a timely and accurate manner. They were also seeking meaningful KPIs out of all their facilities (to make their Continuous Improvement Program more successful) without having to manually collect, organize and analyze the required data from paper to Excel. Previously, Cashman's CRC supervisors would receive requests from both clients and management alike for individual work order status updates as well as summary data on the performance of the CRC as a whole. Cashman would attempt to meet these requests manually by sending an employee out into their shop to track down the equipment owner's components, talk to the technicians and then follow up with their client via phone calls for a process that overall could take hours or even days to complete. While this manual and paper-based process had been sufficient in the past, Cashman's growth and their desire to remain best of breed drove them to seek digital transformation.

While researching their market options, Cashman quickly realized there was a lack of software that was comprehensive enough to track their process to the high standards they set for themselves. Cashman came across a mobile app developed by the software company, Mobile Epiphany, called Barcode Scan Track®. Barcode Scan Track® is a mobile app designed to use barcodes to track an array of different assets in multiple different industries with complex processes.

Cashman was intrigued by the mobile app and understood the connection to their needs. This resulted in them reaching out to the asset tracking subject matter experts at Mobile Epiphany to inquire about applying a similar concept to track their CRCs' rebuild processes. Impressed with what they saw and learned, Cashman hired Mobile Epiphany's experts to come to their CRC and fully understand their internal processes. As a proof of concept, Mobile Epiphany designed a system and mobile app to track subcomponents during the parts inspection step of the rebuild process. After deploying and using the software in their CRC, Cashman realized that the system was meeting their needs without burdening and slowing down their workers. It was at this point that Cashman had their Epiphany. Therefore, Cashman asked them to take the next step. A big step.

Mobile Epiphany was challenged to design and build a breakthrough approach to their tracking needs. It had to be simple to use, easy to learn and easy to implement. Cashman needed a system that would track every main component and its subcomponents during all 40+ stages of the rebuild process without slowing down or distracting the technicians doing the work. The shop technicians feeling unburdened by the data collection methods would also be crucial in ensuring CRC-wide user adoption. Finally, the system would need to give management ample visibility into their data for actionable use and allow management to set and visualize Key Performance Indicators (KPIs) so that they could continuously compare actual KPIs in the shop to their desired KPIs. This led to Mobile Epiphany developing the most intuitive and comprehensive rebuild tracking mobile app on the market, Krinkle Rebuild Tracker®.

Ensuring Quality Outcomes with Comprehensive Data Visibility

Krinkle Rebuild Tracker

Krinkle Rebuild Tracker® is an enterprise-class mobile application and management reporting tool for heavy equipment component rebuild centers that easily keeps track of every stage of any rebuild process. Krinkle Rebuild Tracker® even allows QA techs to photograph and record the status of every part so that clients can see exactly what management sees in standard, customer-facing reports.

The data visibility which the system provides to management is comprehensive, organized and at your fingertips from the start of the process to its finish. By simply attaching rugged barcodes to main component housings, parts baskets, rolling gear trees, palettes and other parts containers, every main component work order is linked to every part from the moment of disassembly until it is fully reassembled, tested, painted and shipped back to the customer (or placed on the shelf for exchange programs).

Using a smart handheld or tablet device (iOS or Android), shop workers can scan the barcodes on their parts baskets and quickly declare which stage of the process that set of parts, or the entire reassembled main component, is in. For those who want to go further and complete specific inspection processes within the app, that is available too. The effort at each step is minimal (most data inputs take less than 15 seconds!) and the ease with which this data becomes visible to and actionable by management cannot be overstated. With a well-established group of out-of-the-box reports and even custom data dashboarding, the access to easy-to-read, quick and actionable information is unrivaled in the industry.
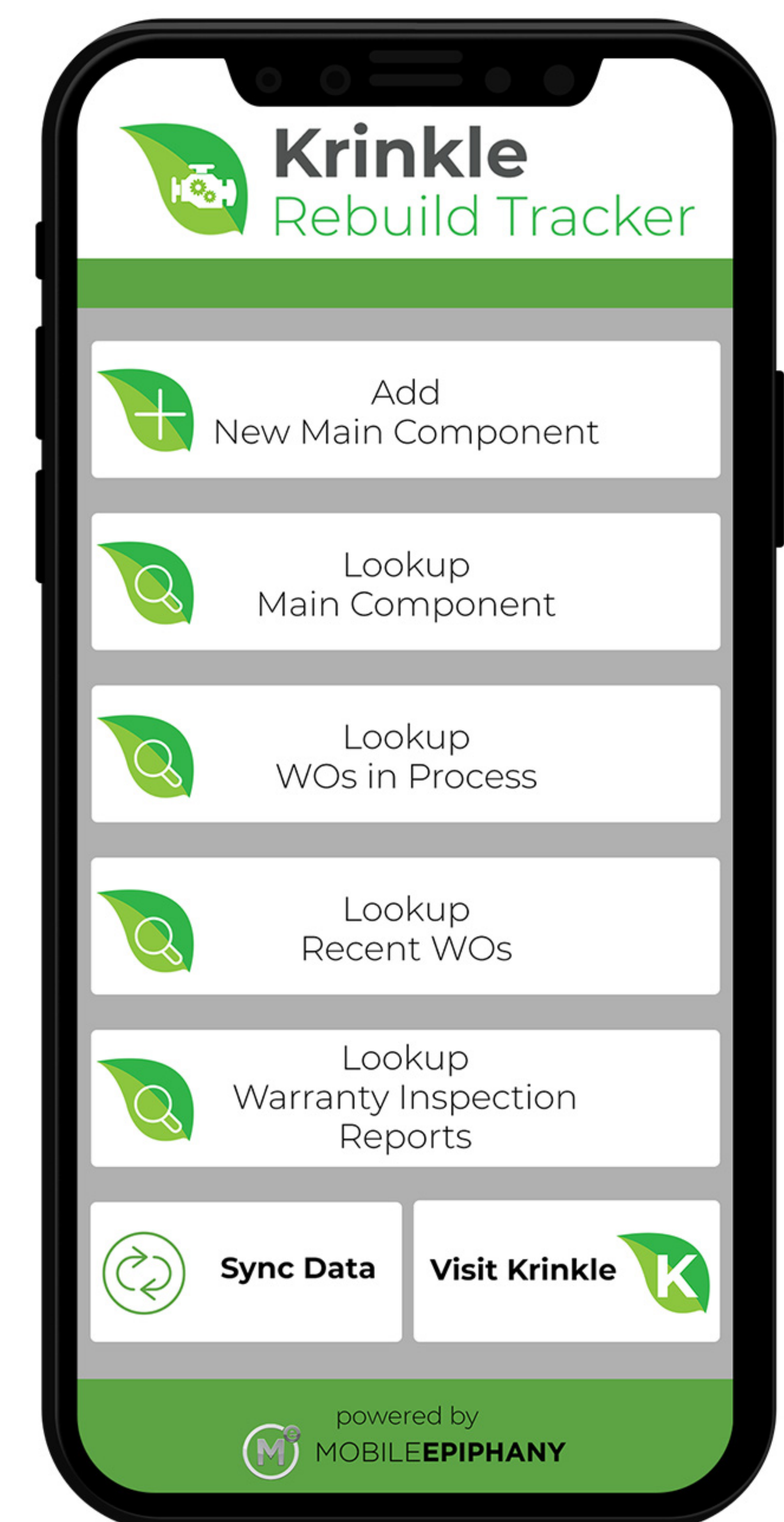
Results of Adoption

"Since deploying Krinkle Rebuild Tracker®, we've been able to gain a multitude of insights into our rebuild process that have helped improve our relationships with clients and management. Now, when clients call asking for a time estimate for their main components, all we have to do is press a couple of buttons and run a report and we instantly know where the main component and all of its subcomponents are in the rebuild process. I also love how the system has allowed us to evaluate which steps in our process may be slowing us down. This allows us to focus on improving them. The best part is that we were able to do all of this without slowing down our shop technicians and their work. That was critical for us."

David Schmidt
CRC Manager at
Cashman Equipment Company

Get In Touch

Mobile Epiphany, and their Krinkle brand of mobile and back office solutions, enable businesses to create and/or adapt existing mobile solutions to their business needs rapidly and cost-effectively. Contact us today to see how Mobile Epiphany can help solve your business challenges.

For a great caterpillar partner for your fleet of machines across Nevada and California, please contact Cashman Equipment Company at:
www.CashmanEquipment.com

Mobile Epiphany provides enterprise-class mobile applications that simplify business processes and increase operational efficiency for many different industries. Mobile Epiphany has distinguished itself from its competitors through its unparalleled service response times and its code-free rapid application configuration technology that allows them to implement mobile application projects faster and more cost-effectively than other solutions. Krinkle is Mobile Epiphany's mobile application product brand that creates out-of-the-box apps to target business challenges in industries like environmental health and safety, oil & gas, fire and life safety, cell tower construction, heavy machinery, and many more.