
# Mantrac Group

## Transforming the Rebuild Process with Mobile Data Collection and Actionable Data Visibility

Unatrac is a Caterpillar (CAT) dealer conglomerate with many Mantrac dealerships across ten countries and three continents. They distribute and support the full range of CAT heavy equipment products. One of the many services offered by many of Unatrac's Mantrac dealerships is main component rebuild. A "main component" refers to engines, torque converters, differentials, braking systems and many large machine components. These rebuilds are conducted in a number of Component Rebuild Centers (CRCs) across their service area which ranges across Africa, the Middle East, Russia and beyond. Their clients include large, international mining companies, who require regular service for their CAT equipment.

Krinkle Rebuild Tracker

**Client:**
Mantrac Group

**Challenge:**
Providing WIP updates for clients without slowing down the rebuild process

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

# Transforming The Rebuild Process

Krinkle Rebuild Tracker

When CAT equipment needs to be serviced, its main components are sent to an authorized CAT CRC to be rebuilt. Upon arrival, these main components are broken down and organized into parts baskets (we call them subcomponents), and then moved around an enormous rebuild center to be cleaned, disassembled, inspected part-by-part, reassembled, tested and so on. If it is deemed that some parts need to be replaced, the CRC orders the appropriate parts, attempts to track them when they arrive and tries to keep the process moving forward. Once all the parts are serviced and meet the quality standard, they are brought out of their temporary storage locations, and reassembled for final testing, painting and shipping. Overall, this process typically includes up to 48 different stages, all of which have to be tracked, part for part! This traditional and manual (paper based) process can be daunting and is often rife with errors and missing information.

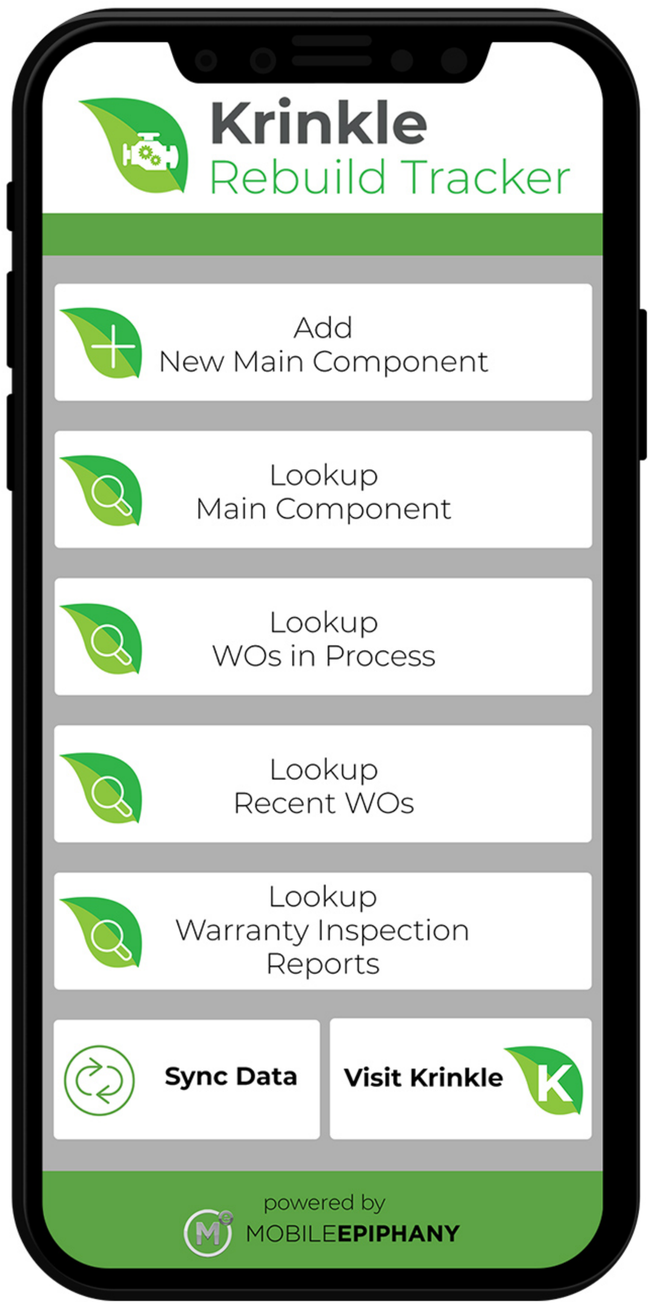
The rebuild process, and the time it takes to complete it properly, is critical in maintaining the machinery that are owned by Mantrac's clients and critical to the CRC's bottom line. However, the traditional rebuild process is very time consuming, hard to track and even harder to gain "step-by-step" insight into. Gathering real Key Performance Indicators (KPIs) out of a CRC is labor intensive and nearly impossible to get accurate.

Mantrac understood their clients' needs and concerns, and wanted to provide regular updates to keep their equipment owners informed. They were also seeking meaningful KPIs out of all their facilities worldwide without having to manually collect, organize and store the required data. Previously, Mantrac'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. They would attempt to meet these client requests manually by sending an employee out into their shop to track down the equipment owner's components, talking to the technicians and then following up with their client via phone calls for a process that overall could take hours or even days to complete. Additionally, summary of performance requests from upper management were nearly impossible to provide quickly and accurately.

Mantrac wanted to be able to give their clients and upper management near real time “Work in Progress” (WIP) updates about individual work orders and overall shop performance at a very high level of accuracy and resolution. To do this, they needed to find and implement a system that would track all of the work 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 adoption. Finally, the system would need to give management ample visibility into their data for actionable use, and allow management to set Key Performance Indicators (KPIs) so that they could continuously compare actual KPIs in the shop to their desired KPIs. Once Mantrac had developed their requirements and reviewed the international market options, they chose to deploy the enterprise class mobile solution, Krinkle Rebuild Tracker®, developed by the Denver based company, Mobile Epiphany.

## Good Data Collection and Simplified Data Visibility

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 whole reassembled main component, is in. For those who want to go further and actually 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 dash-boarding, the access to easy-to-read, quick and actionable information is unrivaled in the industry.

## Results of Adoption

With the successful foundation of data collection and simplified visibility, created by Krinkle Rebuild Tracker®, Mantrac looks to continue improving their operations by incorporating more of their internal processes into the Krinkle Rebuild Tracker® system. This allows all the data collected to be leveraged by other internal process improvement initiatives such as an upcoming scheduling module to manage incoming work, as well as detailed inspection forms for nearly every aspect of the rebuild process.

## 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.

**Krinkle**
Rebuild Tracker

*"Since deployment, monitoring Work In Progress data and utilizing automated reports have streamlined our tracking and customer informing processes while vastly improving our insight to the shop's performance. Our shop floor operations have also improved through Krinkle Rebuild Tracker®'s inspection functionality and integrated tracking. We can find every part of every main component, no matter where it was last placed in the shop, with virtually no effort. Our customers now receive near real-time visibility into their components throughout the entire rebuild process,"*

**~ Matt Woodall,**
**Mantrac Component Reliability Champion**

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 uses ready, out-of-the-box apps to target business challenges in industries like oil & gas, fire & life safety, telecommunications, RFID and barcode asset tracking, heavy machinery, and many more.

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