



FIRST FOREMOST

KaMin Performance Minerals LLC bought the first Hitachi wheel loader sold in North America after extensive research and collaboration, and now their hard work is paying off.

With more than 90 years' experience, KaMin Performance Minerals in Wrens, Georgia understands the need for the right equipment to tackle the highly specialized kaolin mining and calcine production operation. After a long, involved research and acquisition process, KaMin chose the Hitachi ZW150-6.

Getting to that point began when the leadership at KaMin decided to thoroughly analyze their wheel

loader choices. They decided that the research and evaluation process would go "beyond the seat," says maintenance supervisor Freddy Davis.

Way beyond, says Kyle Downs, buyer for KaMin. "We formed a cross-functional group of maintenance, purchasing and operations personnel. Mechanics and operators provided their input to their supervisors who, in turn, sat in that cross-functional group."

Ultimately, KaMin purchased the first Hitachi wheel loader sold in North America, a ZW150-6. With several hundred hours now on the machine, KaMin says the ZW150-6 exceeds their expectations. That's a huge relief to all involved because getting to this outcome wasn't easy or quick. "They started the process in December

2017 and took delivery of the loader the end of May 2018," says Todd Bennett, sales and rental representative for Cowin Equipment Company Inc., the dealer serving KaMin. Here's the story behind the lengthy process and why it was so successful.

Take time to do it right

The testing process was extremely time-intensive as the interdisciplinary team researched and tested various loaders. In fact, KaMin tested two loaders simultaneously, one in the size class of the ZW150 and a larger loader. KaMin invited its personnel and management team to participate, a logistical challenge for everyone involved. The timing was particularly tricky for the Hitachi team.



KaMin Performance Minerals bought the first Hitachi wheel loader sold in North America. This 141-horsepower ZW150-6 is used in the company's production of calcine from kaolin clay at their plant in Wrens, Georgia.

At the time, the KCM line of loaders was being retired and Hitachi Construction Machinery Loaders America Inc.(HCMA) was launching. It was a massive task to transition from KCM to Hitachi, and HCMA wanted to make sure everything was done correctly the first time.

"While KaMin considered a wheel loader in Cowin stock, they made the decision to wait for the Hitachi brand Tier 4 Final loader. Why? "We didn't want our newest loader to start its service life with us one generation behind the current EPA emissions regulations," Downs says. "We felt it was worth waiting to get exactly what we wanted."

Decision drivers

As part of their commitment to "look beyond the seat," KaMin

sampled several loaders from several OEMs. KaMin had a favorable impression of Kawasaki and KCM loaders but they had no experience with the Hitachi brand nor with Cowin.

KaMin involved a wide-range of personnel in the hands-on evaluation and acquisition process. The cross-function group, including operators, tested the comfort and functionality of the cab. The team's overall impression of the cab was one of roomy comfort, spaciousness and quiet, all qualities that factored into the decision process.

Because KaMin's kaolin clay application involves wet, slick terrain, getting enough traction for a loader to charge the pile is a common challenge. Every operator commented on the ability of the ZW150-6 to move

aggressively without tire slippage. The Hitachi ZW150-6 is equipped with traction control plus a rimpull control system that balances rimpull with front digging force to optimize performance. The result is reliable performance regardless of application or environment.

Johnathan Newsome, production supervisor, says the 3.1-cubic yard standard bucket on the ZW150-6 is well matched to KaMin's processing facility. "Buckets on similarly sized loaders from other OEMs were in the 2.5- to 2.7-cubic yard range," Newsome says, "and the Hitachi bucket provided a dramatic improvement in efficiency at our plant."

Making the best better

It was clear the ZW150-6 was the right loader for KaMin's



Hitachi commissioned artist Gary Wright to paint “Hitachi – Coming to America.” To commemorate their purchase of the first Hitachi wheel loader sold in North America, KaMin was presented with a limited-edition lithograph of that painting. Shown left-to-right accepting the gift are Freddy Davis, Kyle Downs and Johnathan Newsome of KaMin and Todd Bennett of Cowin Equipment.

application, but even the right machine needs a few refinements. The kaolin that is slick on the ground sticks to buckets, so KaMin lined the bucket.

KaMin added central lube to the ZW150-6. KaMin runs central lubrication systems on all their equipment. “The numbers are undeniable; central lubrication saves money in the long run,” says Freddy Davis who, after nearly 42 years with KaMin, is qualified to make the assessment.

Cowin added a rear-view camera. HCMA has gone to great lengths to improve rear visibility by changing the hood design and repositioning and aligning the muffler and air intake. The result is exceptional rear visibility but the camera provides additional convenience, confidence and above all, safety.

Was it all worth it? Do the ends justify the means? “Six months is a long time to work on acquiring a loader,” says Downs, “but we’ll use this loader extensively for years. If all that time and effort means we got the right machine for the job, then it was a good use of resources.” ■



The kaolin is extracted from a mine about six miles from the KaMin processing facility. More than 100 feet of overburden, the brown material above the whitish-gray kaolin, must be removed to make the product accessible.

Band of opportunity

Mining kaolin is restricted to a narrow band of the material stretching from South Carolina through Georgia and into Alabama. While there are pockets of kaolin elsewhere in the country, this is the only deposit with enough material to support production. Kaolin is a hydrated aluminum silicate crystalline mineral formed from weathered granite that once sat below the Earth’s surface. The band in which it’s found is known as the fall line and is where the sea met land some 70 million years ago. The source of the weathered granite is the Piedmont Plateau, an area that now forms the foothills of the Smoky Mountains.

At the KaMin operation, kaolin deposits can be covered by up to 100 feet of overburden, which is stripped away so the kaolin can be loaded by excavators into trucks. The raw material is graded based on color; whiter kaolin has fewer impurities. At the Wrens location, the kaolin is trucked about six miles to the processing plant where it begins a multi-step process to classify the product and remove impurities. Following this initial processing, the kaolin may undergo additional processing to calcine or surface treat the product. The finished product can be shipped as a slurry, dry bulk, or packaged product, via rail, tank trucks, containers or vans.

KaMin is the world leader in fine-particle, high brightness kaolin technology. Their kaolin clay is used world-wide by leading manufacturers of paper, paint, printing ink, rubber and plastics.



In addition to Wrens, KaMin operates mines and processing facilities in Sandersville and Macon, GA, its headquarters. Other operations include its CADAM subsidiary in Brazil, as well as a terminal and make-down plant in Antwerp, Be.