FOURTH ISSUE 2013

FOCUS

EXTREME ENGINEERING MEETS EXTREME ENVIRONMENTS

■ INTRODUCING THE 70Z7

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Kawasaki

■ CONEXPO PREVIEW





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- Wrap-around counterweight lowers the center of gravity increasing stability
- Universal Quick Coupler allows a wide range of attachments
- Interchangeable with skid steer attachments
- Limited Slip Differentials provide additional
- traction for applications requiring extreme traction control
- Bucket Leveler
- Reliable Kubota Engines, supported locally
- Third spool hydraulics, standard
- High Ground Speed, standard
- Wrap-around counterweight lowers the center of gravity increasing stability
- Eco Mode provides a fuel efficient setting resulting in better fuel economy without affecting productivity
- Electronically controlled HST stabilizes engine speeds providing smooth acceleration and deceleration
- Bucket Leveler
- Reliable Kubota Engines, supported locally
- Third spool hydraulics, standard
- Cab access on both sides of machine
- High Ground Speed, standard

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Kawasaki is the most experienced manufacturer of articulated wheel loaders in the world. Since introducing our first models in 1962, we have maintained a leadership position in technology, service, and support. With a heritage grounded in innovation through Kawasaki Heavy Industries, KCMA Corporation's focus on wheel loaders translates into real benefits for you and your business.

Kawasaki articulated wheel loaders incorporate innovative design features coupled with extensive knowledge and experience gained from real-world applications. Since 1978 Kawasaki has been listening to, and learning from, customers and dealers in the North American market. As a result, Kawasaki wheel loaders continue to evolve with a constant focus on one thing — producing the most durable, most efficient, most dependable wheel loaders possible.

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45 HP – 720 HP
.78 cu. yd.– 13 cu. yd.

Sam Shelton, Editor – Kawasaki (770) 499-7000 • SShelton@KCM-America.com



BRANS, & CONTRACTOR BRANN, & CONTRACTOR LOW MAINTENANCE THE 7027 IS A CHARMER



BRAINS

In a highly competitive and crowded class, Kawasaki's new 70Z7 is a stand-out. Like all the new Z7 wheel loaders, the 70Z7 has retained the IntelliTech functions such as the patented IntelliDig system, balancing rimpull force and hydraulic digging force to match conditions, the QuickCycle function, and the FlexShift feature that matches shift points to the actual working conditions. But unlike its larger-sized brethren, the 70's intelligence works behind the scenes, so many of its operations perform without human intervention. The 70 is also incredibly easy to run. Its high-intensity LCD monitor, straightforward dash arrangement, and intuitive systems make it ideal for rental purposes as well as operations where operator skills run the spectrum.

New T4i emissions technology means a more fuel-efficient and savvy loader. The

70Z7 is so smart it can reduce fuel usage up to 20-percent per ton of material moved compared to the previous 70ZV-2 model.

BRAWN

When it comes to power, the 70Z7 has it by the bucketful. It sports a 173 hp (gross) Cummins engine, a ZF five-speed transmission, work mode selector, 50-degree bucket tilt-back angle for carrying, and a full-turn tipping load of a whopping 22,800 pounds. A Quick Power switch kicks in enough extra power to muscle through tough spots. In very challenging environments the Power Mode can be selected, although field tests show it isn't required for even the most demanding applications.

Field tests are also reporting a vast improvement over previous–generation fuel consumption. Now that's attractive on all levels! The 70Z7 is also quite versatile. Add a high-lift arm configuration, or third-spool hydraulics to that and you have a real work-horse for a variety of applications and environments.

HOME AWAY FROM HOME

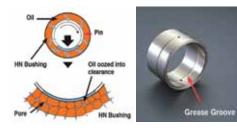
When it comes to operator comfort and productivity, the 70Z7 also distinguishes itself from the crowd. In the cab, there's improved visibility especially to the rear, ample air conditioning and heat, and lots of storage. Pressurization reduces dust infiltration. Tilt telescoping steering, bolt-on adjustable side console, air suspension seat, and AM/FM/CD/WB radio with AUX input means anyone can feel right at home.

The multifunction single-control lever simplifies tasks. The direct-acting Orbitrol Steering responds quickly and accurately, minimizing operator effort. Combine that with the optional ride control, and operators won't leave the job site physically drained.

LOW MAINTENANCE

The 70Z7 was also designed with ease of maintenance in mind. The change to T4i also means the 70 has NO diesel particulate filter (DPF)! If you are concerned about regen, no worries here — no DPF, no regen. The adapted EGR technology reduces NOX and particulate matter. The automatic reversible cooling fan along with the diesel fuel cooler take the worry out of heat and dust build-up as well.

Gull-wing doors provide easy access to the engine. Rear operational lights are safely tucked into the bumper/counterweight. The hydraulic oil-change service interval is extended up to 4,000 hours when KCM SuperEX46 fluid is used. The engine-oil service interval is extended to 500 hours with the use of low-ash CJ-4 oil. And wherever the patented HN bushings are found, lubrication is extended to 500 hours. Just what are HN bushings? High-viscosity oil



The use of HN bushings extends lube intervals on bucket linkage up to 500 hours or more, reducing maintenance time and costs.

is vacuum-impregnated into sintered highhardness metal. During machine operation, that oil oozes from the pores of the bushing into the clearance between pins and bushing. HN bushings are located in the following pins: bucket, bucket link, bucket cylinder, bell crank, lift arm cylinder, lift arm pivot, and steering cylinder.

For more information about the new attractive, yet productive, 70Z7 wheel loader, contact your local Kawasaki dealer or go online to *www.kawasakiloaders.com*/70Z7.



70Z7 KEY SPECS

Bucket Capacity, Heaped (yd³) 3.7
Max. Dumping Clearance 8' 11 7/8"
Dumping Reach 3' 8 1/8"
Bucket Hinge Pin Height 12' 10 3/8"
Breakout Force (Ibs) 25,180
Operating Weight (lbs) 31,750
Engine Make/Model Cummins QSB6.7
Horsepower (gross/net) 173/168
Transmission Type Planetary
Speeds F/R5F/3R
Hydraulic Cycle Time (sec.) 10.8
Linkage Z-bar
Tires Standard
Tires Optional 23.5-25-12PR
(L-2) (L-3)



HIGH-REACH LIFT ARMS PERFECT FOR AG USE

WHEEL LOADER REPLACES TELEHANDLER

laussen Farms Custom Farming tends over 11,000 acres of farmland in southwestern Ontario — 8,000 acres belong to their 250 customers; 3,000 to their own family farm.

Truly a one-stop farm-contracting company, Claussen Farms provides a complete range of services. "We do everything from planting to harvesting, which includes tillage, spraying, fertilizing, solid manure spreading, crop scouting, and crop monitoring," explains Sonke Claussen, who co-owns the company with his brother Hauke. "The majority of our clients are livestock farmers — most are in dairy. Crops include winter wheat, winter canola, corn, soybeans, colored beans, and alfalfa."

To assist them in their wide-ranging operations is a new Kawasaki 65ZV-2 wheel loader. Ordered from Great Lakes New Holland (GLNH) with optional high-reach lift arms, third-function valve, and high flotation tires, the Kawasaki arrived in early April. They expect to use it to load about 40,000 tons a year of solid manure and other organic fertilizer materials.

"Besides loading manure, we use the loader with pallet forks to move seed, fertilizer, and chemicals," says Sonke. "Eventually we'll also use it with our Quadsaw for tree and fence-row clearing, and stoneforks to pick up rocks. It is a very versatile machine for all kind of jobs around a farm."

The loader has traveled to about 100 different locations, ranging out as far as 60 miles from Brucefield, where Claussen Farms is headquartered. Typically the company floats the loader, and the float goes behind one of the manure spreaders, reducing the number of operators. Usually there are two people — Cory Quesenberry and Peter Bootsma — who use the 65ZV-2 the most. But all 13 full-time employees have had training on the loader and run it. They've found the operation of the machine is straight forward and easy to learn.

The 65ZV-2 replaced a telehandler, and Claussen Farms has noticed some key differences: improved visibility, and tighter turns thanks to the articulated steering. But most importantly, "Overall we gained about 20 percent in loading capacity which resulted in 10 percent more tonnage spread per hour — this is something we had not expected," explains Sonke. "All together the wheel loader is a lot stronger and heavier-built machine, and we're wondering why we didn't trade sooner." The 65ZV-2 is expected to move about 40,000 tons of solid manure and other organic fertilizer this year for Claussen Farms Custom Farming. The Michelin 580/70R26 tires provide a bigger foot print to reduce compaction when the loader is operating in the field.

Claussen Farms decided to buy the 65ZV-2 for several reasons. It was the right size for working in both large and small/tight places. It had more reach than some larger conventional wheel loaders, which was important since they need to dump into 11-foot-high manure wagons. And the wheel loader is built for just the kind of work they are doing, so it should hold up longer and be more reliable. They do not own any other wheel loaders.

The company has worked with GLNH for over 10 years, and had complete confidence in the dealer when they decided to carry the Kawasaki line. "GLNH are great people to work with, and they stand behind their products and services. I know they will do their very best to service us."

Claussen Farms Custom Farming, Brucefield, Ontario, is serviced by Great Lakes New Holland.



KAWASAKI HOT SLAG LOADERS ROLL ON

Ithough wheel loaders can be found in a myriad of tough applications, hot slag is arguably the most different, dangerous, and demanding one of them all. Extreme heat. Toxic fumes. Invasive dust. It's enough to make many operators as well as manufacturers wilt from the challenge.

Back in 2000, Kawasaki set a company goal to pursue and develop special application packages, including hot slag. Developed with input from the National Slag Association and a number of potential end users, Kawasaki's Hot Slag packages rolled out two years later. Orders soon followed. Today, over 150 Kawasaki Hot Slag units are in use in North America, while in Japan, 106 of them have been delivered during the last three years alone. And wherever they're hard at work, Kawasaki Hot Slag machines have logged countless numbers of hours of safe and productive performance.

IT'S ALL ABOUT PROTECTION!

Kawasaki's Hot Slag features and options boil down to two simple mandates: protect the operator and protect the machine. Getting there, of course, is far from simple. However, the new Z7s come with certain standard features that create an excellent head start:

- An all-metal-fabrication engine compartment
- Steel fenders
- Rear steel grill
- Ability to handle Rockland Hot Slag buckets with Hot Slag teeth
- Ability to utilize Titan or General L5 Slick tires

PROTECT THE OPERATOR

When it comes to adding extra protection to keep the operator safe in hot-slag conditions, an all-new cab-window design utilizes blastresisting tempered glass sandwiched with laminate film that is then set in a reinforced retaining frame. E-Coat helps block external corrosives. The design also ensures damaged glass can easily be changed out while retaining a true factory fit.

Additional safety features to protect the operator include a transmission override that



All-new cab-window design utilizes blast-resisting tempered glass that is then set in a reinforced retaining frame. E-Coat helps block external corrosives.



Batteries are isolated and insulated. The wiring harnesses for the chassis, transmission, and cabin are high-heat resistant.



Belly guard provides protection for the front chassis and transmission.



Fuel and hydraulic tank guarding protects critical components. Hydraulics utilize Ecosafe[®] hydraulic fluid for good fire resistance.

can be used in event of controller failure allowing emergency activation of F1 or R1. The cabin pre-filter not only pre-cleans the air before it enters the cab but also provides additional cab pressurization. One option about to make its debut: pre-prepping the cabin for fire suppression. Kawasaki is working with Ansul to predetermine tank and nozzle locations as well as factory brackets for tanks and actuation.

PROTECT THE MACHINE

When it comes to safeguarding the wheel loader itself, special guarding and insulation measures are available for all critical areas.

For the electrical systems, batteries are isolated and insulated. The wiring harnesses for the chassis, transmission, and cabin are high-heat resistant.

The powertrain accesses a parking brake override, transmission override (F1/R1), and remote engine shutdown. Kawasaki also engineered a rear brake transmission disconnect and stainless steel axle brake lines into their Hot Slag loaders.



High-heat resistant hose package and guards in the articulation areas provide critical protection.

The hydraulics utilize Ecosafe® hydraulic fluid for good fire resistance. The fluid is also very clean, as the chemistry does not support the formation of sludge or gels. In addition, Ecosafe® has excellent lubrication qualities, is biodegradable, and has a very long fluid life due to its stable chemistry.

And when it comes to guarding and added protection, the options are quite impressive:

- Battery box guard
- Front chassis and transmission belly guards
- Steel encased head and tail lights
- Fuel and hydraulic tank guards
- High-heat resistant hose package and guards in the left and right articulation areas
- Guarding on hydraulic and transmission sight gauges and transmission filter
- Steel roof cap with high-heat mirrors
- Under-cab shield
- Fire shield for seal-saver boots and bucket cylinder
- Steel cable steps
- Wheel hub studs (I.L.O. bolts)
- One option still under development fuel filter metal housing

Although there is at least one other manufacturer that offers a hot slag package, there's a lot they don't include that Kawasaki does: cab air pressurizer, front chassis belly guard with lift cylinder guard, steel radiator grill, metal frame mirrors, fire sleeves for hydraulic hoses and electrical harness, stainless steel brake lines, heat shield under the cab floor, and on, and on, and on.

AFTER-SALES SUPPORT

Kawasaki understands the necessity for impeccable and timely support, especially in such a hazardous application. All Kawasaki dealers are factory trained in hot slag. And should a loader need special service support, a Kawasaki district service manager will personally go to the site and evaluate the condition.

Hot Slag loaders also have their own set of parts; dealer parts departments understand the special ordering procedure. In addition, reman components like transmissions, axles, and differentials — all rebuilt by Kawasaki in its own reman facility located in Georgia — are available.

Kawasaki has also conducted numerous International Hot Slag Customer training sessions at their facility in Kennesaw, Georgia. For example, in July, KCMA conducted a Customer Service Training Class for Tube City IMS customers throughout the world. In attendance were a total of 12 students — six from South Africa representing TCIMS and their Kawasaki dealer ELB Equipment. The other six students represented IMS from Texas, Pennsylvania, and Utah. Students went through an exhaustive training program focusing on all of the technical aspects of their 95ZV-2 Kawasaki Wheel Loaders, as well as training and technical libraries. Training topics covered included a Hot Slag Inspection, Safety Features, In-Depth Hydraulics and Electrical Wiring training, and Diagnostics with classroom and handson instruction. Custom Hot Slag training books were created specifically for IMS and their severe wheel-loader application. IMS Equipment Technicians and Maintenance Supervisors have declared Kawasaki an industry leader within this equipment classification.

For more information about Kawasaki Hot Slag Packages, contact your local Kawasaki dealer or go online to www.kawasakiloaders.com/HotSlag.

MASCARD CHOOSES 9027 AFTER RIGOROUS TESTING

onor. Respect. Smiles and get-togethers. Discipline and high expectations. Gifts at every holiday. Sounds like a typical family, right? In fact, the third generation of the family that owns and operates J.P. Mascaro & Sons treats all 800 employees as if they are family. And the results are evident — the company has repeatedly been listed in Waste Age's Top 100, which ranks firms based on annual revenue, even though the company only operates in four states — West Virginia, New York, New Jersey, and in their home state, Pennsylvania.

Under the tutelage of Pat Mascaro, the President and CEO of J.P. Mascaro, the company is thriving. In fact, the company recently signed the biggest contract in the company's history — the contract for operating two transfer stations for Morris County, NJ — one in Parsippany and one in Mt. Olive. The multi-million-dollar contract expanded their workforce by 70, and their machine fleet by 100 units.

THE OPPORTUNITY

The contract for the transfer stations is up for bid every five years, and when the contract came up for rebid in 2012, Waste Management held the contract. Waste Management had the contract since 1999; they inherited it when they bought the facility from the previous owners.

Winning the contract would be a great opportunity for the J.P. Mascaro Company, and Pat Mascaro set out to win it. He put together a team to look at the bid for the contract from every angle to make sure that if the company won the contract, it would be of great benefit to the company's bottom line. Included in this arduous process was spec'ing out and pricing all of the equipment that would need to be purchased to perform the work at the transfer station, which would include 27 truck tractors, 68 trailers, and replacement of 5 wheel loaders.

THE TEST

To ensure the equipment utilized at the facility would result in profits and permit compliance if J.P. Mascaro won the bid, the company set out to evaluate and test five different manufacturers' wheel loaders. This was done in two steps; first — detailed research by their Equipment Manager and Mascaro's in-house engineering team, and second — through live-application demos of five manufacturers' wheel loaders at one of Mascaro's yard-waste disposal sites. The process took about two months to complete — and this included calling every one of the end-user references each of the manufacturers provided.

First, the team analyzed the weight class of wheel loader needed at the transfer facility based on the material that needed to be moved. When that was determined, the team got to work.

They looked at the operation of the wheel loaders performing the constant stream of up/down and back-and-forth motion that using the loader in the transfer station necessitates. The team could not rely on just the manufacturer or end user's word on this one — this is a unique operation with unique demands. They needed to make



The 90Z7 loads refuse onto large trailers.

sure the loader's hydraulics could handle the demands of this severe application and environment.

They also investigated the durability of the tested loaders, as well as the availability of replacement parts — both items that, if not up to par, would seriously affect the transfer station's profitability.

The wheel loaders at the transfer station are actively engaged in a dirty-by-nature work environment, so durability features like reinforced belly pans, hose protection, and a reversible fan to blow out the dust were necessary. Not to mention the ability to perform well in the wild temperature fluctuations based on the season sweltering heat in summer and bitter cold in the winter.

Additionally, due to the permit requirements of a clean and washed floor by 6:00 p.m., it was very important to the Mascaro group that the machines they put in place would be ready to work and allow them to meet that requirement with no downtime. If an issue were to arise, the company needed parts immediately available to perform the repair, because lost time not only would equal lost revenue, but it could equal fines, as well.

J.P. Mascaro added 27 truck tractors, 68 trailers, and 5 Kawasaki 90Z7 wheel loaders to its fleet when it won the transfer station contracts.



At the transfer stations, smaller trucks come and drop the refuse to the tipping floor. The refuse is pushed to a larger pile where it is then loaded onto much larger trailers. The trailers are weighed as they leave the facility to ensure permit compliance, and the accuracy of the hydraulic bucket scales on the Kawasaki wheel loaders has proven to be "phenomenally accurate," according to Mike Bosco at the Parsippany transfer facility.

And, speaking of profitability, fuel usage was seriously studied by the Mascaro group. Given that the loaders actively work in the transfer facility with very little idle time, fuel costs were a huge consideration in evaluating the profitability of the operation. Information was gathered from the active demo site operators, and Mascaro's in-house engineering team performed detailed analysis to find the highest performing fuelefficient machines.

THE REWARD

It turns out the Kawasaki 90Z7 wheel loaders met all of the facilities' needs, and then some. And when J.P. Mascaro won the transfer station contract with their bid, the company purchased the Kawasaki wheel loaders from Steve White, VP Sales & Marketing at Elliott & Frantz in King of Prussia, Pennsylvania. Now, after being in use at Mascaro's transfer facilities since January of 2013, their performance is even better than the testing originally indicated. The Kawasaki 90Z7's Tier 4i Hino engine provides more fuel efficiency than anticipated, and they have experienced zero engine problems, according to the Parsippany facility manager, Mike Bosco. "The tailpipes of the loaders are sparkling clean after all this use," Bosco said. "That proves they are burning clean."

That Parsippany facility processes around 900 tons of waste per day on average, and loads an average of 36 large trailers per day. The Kawasaki 90Z7s are equipped with a 10-yard bucket with a rubber cutting edge, allowing the operators the best visibility possible. This also allows them to use the rubber edge to essentially squeegee the floor clean to comply with permit requirements at the end of each day. And because the Kawasaki loaders are equipped with excavator-like fine-precision hydraulics, the crew can accurately weigh the loads the loader dumps into the truck — making a return trip from the exit scales by the trailers a rare occurrence.

According to Bosco, one operator has more than 15 years behind the wheel of a loader and is very pleased with the maneuverability, comfort, and durability of the Kawasaki 90Z7s. And Bosco is pleased, too. He has run and overseen the use of multiple kinds of heavy equipment, and is very impressed with the power and performance of the Kawasaki. "I have never seen hydraulic systems so precise," he said.

J.P. Mascaro is serviced by Elliott & Frantz, King of Prussia, Pennsylvania.

Central Hall CI-C2

SAVE THE DATE! CONEXPO-CON/AGG® 2014 IS ALMOST HERE

ark your calendar for CONEXPO-CON/AGG 2014, March 4-8, in Las Vegas, Nevada. Always one of the best international showcases for the latest, most innovative construction and aggregate products, the 2014 CONEXPO-CON/AGG should prove to be the most astounding yet.

Among the scheduled 2400 exhibitors will be Kawasaki Wheel Loaders, located in Booth 40042, Central Hall. Key tech and marketing people from both KCM of Japan and KCMA Corporation of North America, manufacturers of Kawasaki wheel loaders, will be on-hand to explain Kawasaki's proprietary features, engineering, and technological solutions. This is an extraordinary opportunity to see and experience what sets Kawasaki apart from other wheel loader manufacturers from those who know the best.

The Kawasaki models on exhibit will be the Compact 42ZV-2 (Tier 4), and the Production Class 80Z7, 95Z7, and 115Z7 (Tier4i) machines. Z7 wheel loaders not only feature the amazing new IntelliTech System that uses logic and intelligence to adjust the operating characteristics of the loader but also a whole host of other technological advances. There will even be an interactive display on the 115Z7 so booth visitors can more fully explore those advances.

So come to the industry's most comprehensive construction tradeshow and learn what's new — and see why the new



Central Hall Booth 40042

Z7 generation of wheel loaders is indeed E.P.I.C. Be sure to come by the Kawasaki Wheel Loader Booth 40042, Central Hall. See you in Las Vegas!

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"Paladin attachments have the durability and performance I can always count on." *Jim W., Pipeline Contractor*

CP

"My Paladin attachment allows me to gain **versatility** on the jobsite and enhance my machine's capability." John B., Forestry Management "When relying on **cost** effective solutions, Paladin attachments are my solution." Steve H., Equipment Dealer "I don't get anything less than maximum **performance** from my Paladin attachments." *Eric J., Landscape Contractor*

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