

PAVINGNEWS

A Caterpillar publication serving the global paving industry



**New Cat® AP1055E
Combines Technology,
Proven Performance**



Cat® Advisor Display

Making technology
profitable and easy to use

CATERPILLAR®

Centers of Expertise



Lieven Van Broekhoven
Worldwide Sales
and Marketing Manager

From my office in the new Global Paving Visitor Center (see story, page 11), you can walk a few steps and see representative models of the entire family of Cat® Paving Products. You can travel a few more steps and tap into in-depth application and technical expertise by entering the Solutions & Learning Center. That's where many of our training instructors, project consultants, and commissioning engineers reside. I should say that's where they reside when they're not out doing crew training for a new machine start-up, or training dealer technicians on troubleshooting techniques, or creating solutions for one of our product users to help them make more money on a project.

You can read about some of our commissioning engineers in the article on pages 16-19. They're just part of the investment that Caterpillar Paving Products Inc. has made in paving industry expertise. We understand that contractors and public works officials involved in the asphalt paving industry face unique challenges and rely on dedicated industry experts. To meet the

demand for technical training, crew training and project consulting, we have stationed around the world the foremost team of paving professionals in the industry. They have local, in-country experience and knowledge. Most of them have a contractor or public works background, so they speak your language and know how to solve your problems.

They work side-by-side with local Cat dealer personnel who are your first line of support. They train dealer personnel in all aspects of repair and maintenance of equipment, plus proper set-up and operation of equipment. If dealers want paving products support, help from our strategically located staff is close at hand.

So, our new Visitor Center is but one of many centers of paving and road maintenance expertise. Add in our factories on four continents, our presence at other Caterpillar training facilities, our commissioning engineers in various Caterpillar District Offices and our dealers—and you have a global network. A network of expertise that's available to you to help you be more efficient and more profitable. ■

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^ The Cat Advisor Display is a refined interface that is intuitive and easy to use.

Cat® Advisor Display

Making technology profitable and easy to use



Paver operators today face more demands than ever: Production goals and safety guidelines. Smoothness targets and tighter specification requirements.

Manufacturers developed technologies as tools to help overtaxed operators. It was a good theory, but too often the technologies didn't work quietly behind the scenes. Instead they demanded attention, at best adding to the operator's worries and at worst leading to potentially costly mistakes.

Now good news has arrived: the Advisor Display, a key feature on Cat® asphalt pavers. Manufacturers typically offer at least some computerization on their pavers. What separates the Cat Advisor Display is a refined interface that is intuitive and easy to use. It enables the paver to "talk" to the operator, and that communication leads to a successful—and profitable—jobsite.

Standard Equipment

The Advisor Display is standard equipment on Cat 2.4-3 m (8-10' pavers). It is located on the left side operator's station—or, on some models, the single sliding operator's console. Its location puts it directly in front of the operator, within easy fingertip access.

All in One Place

Operators occasionally lose focus on the most important tasks as they manage multiple inputs, outputs and processes. The Advisor Display:

- Provides the operator with fingertip access to machine processes and information.
- Allows operators to put their full attention on placing the mat, rather than managing the details.

The Advisor Display provides a means for reducing fuel burn, which can substantially lower operating costs.



- Increases efficiency, helps ensure consistency and optimizes performance.

- Alerts the operator to machine performance issues that require attention.

- Streamlines troubleshooting.

- Features an interface that can be customized for each operator who uses the machine.

- Enables customization of machine settings, such as the friction steering tension.

- Relays a wide range of information, from gauge clusters to systems information.

- Operators can choose from multiple languages: English, Italian, German, Spanish, French and Portuguese.

Simplifying Processes

The Advisor Display provides a single interface from which the operator can reference processes and conduct certain process tasks. For example, the operator can access a start-up checklist, which provides the steps to ensure that the machine is properly maintained.

The operator can also reference “Paving by the Numbers,” techniques for properly executing a transverse joint. By accessing these processes, the operator can ensure consistent technique and performance, making the outcome more predictable and efficient.

Operators can also access the Paving Calculator, a job planning tool that helps coordinate the trucks, paver and compactors for maximum efficiency, which leads to higher mat quality. The Paving Calculator is most useful when used during the planning phase of the project, but can help increase efficiency during operation when properly applied.

Avoiding Mistakes

In the case of recalibration, the Advisor Display can help operators avoid extremely costly miscues that can result from poor recalibration.

The recalibration process is provided in an easy-to-follow, step-by-step format. The system then helps avoid the really big mistakes by defaulting to previous settings if recalibration is not



done properly. This prevents the paver from utilizing bad data when going to work. This bad data could lead to quality problems that require costly re-work.

Helps Reduce Fuel Burn

There is money to be found in efficiencies as well. The Advisor Display provides a means for reducing fuel burn, which can substantially lower operating costs.

Operators can set parameters for automatic engine control. This function reduces engine speed, from high idle to low idle, at a predetermined interval when the machine is stopped.

The feature can be customized, enabling operators to set the length of the interval. For example, an operator could use the Advisor Display to set the automatic engine control to idle down after 30 seconds. The automatic engine control will wait the predetermined 30 seconds when the operator de-strokes the propel lever to stop the machine. The engine then will switch from high idle to low idle. It will continue at that idle

until the operator again strokes the propel lever. At that point it will switch back to high idle and resume operation.

Such a seemingly simple step—made possible by technology working quietly behind the scenes—can lead to dramatic fuel savings.

More Fuel Savings

The new AP1055E and AP1000E pavers have an additional fuel saving feature that is controlled via the Advisor Display: Eco-mode. This feature enables the operator to reduce the engine speed from the default 2,200 rpm to 1,650 rpm.

This is possible because the engine is designed to provide more power than needed for normal operation; a rate of 1,650 rpm typically is more than adequate. The result is delivery of the required power while burning considerably less fuel.

Service Benefits

The Advisor Display also provides valuable service information. It commu-

nicates with the electronic control modules that monitor system functions.

- When the system senses abnormal operation, it alerts the operator.
- It also delivers diagnostics in the form of service codes, which help diagnose problems and streamline service.
- The Advisor Display often provides advanced warning—before larger, more costly problems occur.

The most important word used in association with Advisor Display is likely “intuitive.” Caterpillar engineers understand that technology has to be accessible, not overwhelming. When it is, operators become more productive and efficient, and jobsites become more profitable. ■





New Paver Increases Profitability

For many paving contractors, the ability to increase profitability is closely tied to smoothness and productivity improvements. The new Cat® AP1055E Asphalt Paver with Mobil-Trac™ quickly pays for itself by delivering both.

Smoothness improvements are provided during every stage of operation, from filling the hopper to placing the mat. Several new technologies added to proven performance features combine to deliver outstanding productivity gains.

New Smoothness Levels

The Cat AP1055E takes smoothness to new levels. The paver delivers smoothness, whether working at

standard widths or during production paving with extenders on highway and airport jobs.

The smoothness-enhancing features of the AP1055E are:

- Automated controls and well-designed components reduce segregation potential, maximize efficiency, and deliver a consistent head of material leading to better mat quality.
- A four-position, adjustable push-roller better conforms to haul trucks and transfer units for improved exchanges.
- Wide tunnel and narrowly spaced conveyor bars of 215 mm (8.5") ensure smooth flow to the auger chamber.
- Four pumps enable individual control of each auger and each conveyor for precise control of material in front of the screed.
- Reversible augers and conveyors minimize spillage at the end of the paving pass.
- The friction steer holds steering direction in turns, helping maintain consistent smoothness.
- The Mobil-Trac undercarriage minimizes tow-point movement, leading to a smoother mat.
- The undercarriage's excellent traction provides exceptional grip to keep the paver steady while handling heavy loads.
- The smooth belt creates less base disturbance and minimizes handwork.
- Factory integrated Cat Grade and Slope Control is easy to use, and delivers increased accuracy.

Technology Boosts Productivity

Advanced technology features enable the AP1055E to meet stricter emissions requirements while also providing performance and productivity. Among the technological features:

- The Advisor Display provides visual reference and planning tools that

keep the operator informed for better overall jobsite performance. Multiple language selections are available.

- The Mobil-Trac undercarriage's oscillating-bogey design overcomes obstacles with minimal tow-point movement—and minimal stress on belts.
- The automatic engine speed control conserves fuel, as does the economy mode.
- Cruise control helps operators consistently match the pace of the paving train, creating smoother mats, conserving fuel and maximizing productivity.
- The Power Management feature maintains consistent engine speed under varying loads.
- The factory-installed Cat Grade and Slope Control also provides continuous true averaging to improve smoothness, reduce material usage and keep crews moving.

Reduced Emissions

The AP1055E features the Cat C7.1 engine, which meets U.S. EPA, Tier 4/Europe Stage IIIB interim emissions requirements. The machine also reduces emissions by 50 percent compared to Tier 3/Stage IIIA levels. Particulate matter, meanwhile, declined 90 percent from the Tier 3/Stage IIIA levels. Sulfur is now at a level of 15 ppm (mg/kg).

A regeneration system that activates when conditions are optimal, during either operation or idling, helps reduce emissions. The operator can automatically interrupt regeneration by returning to work.

Visibility and Other Key Features

Good visibility is essential when communicating with haul trucks, adjusting mix height in the auger chamber and optimizing run time



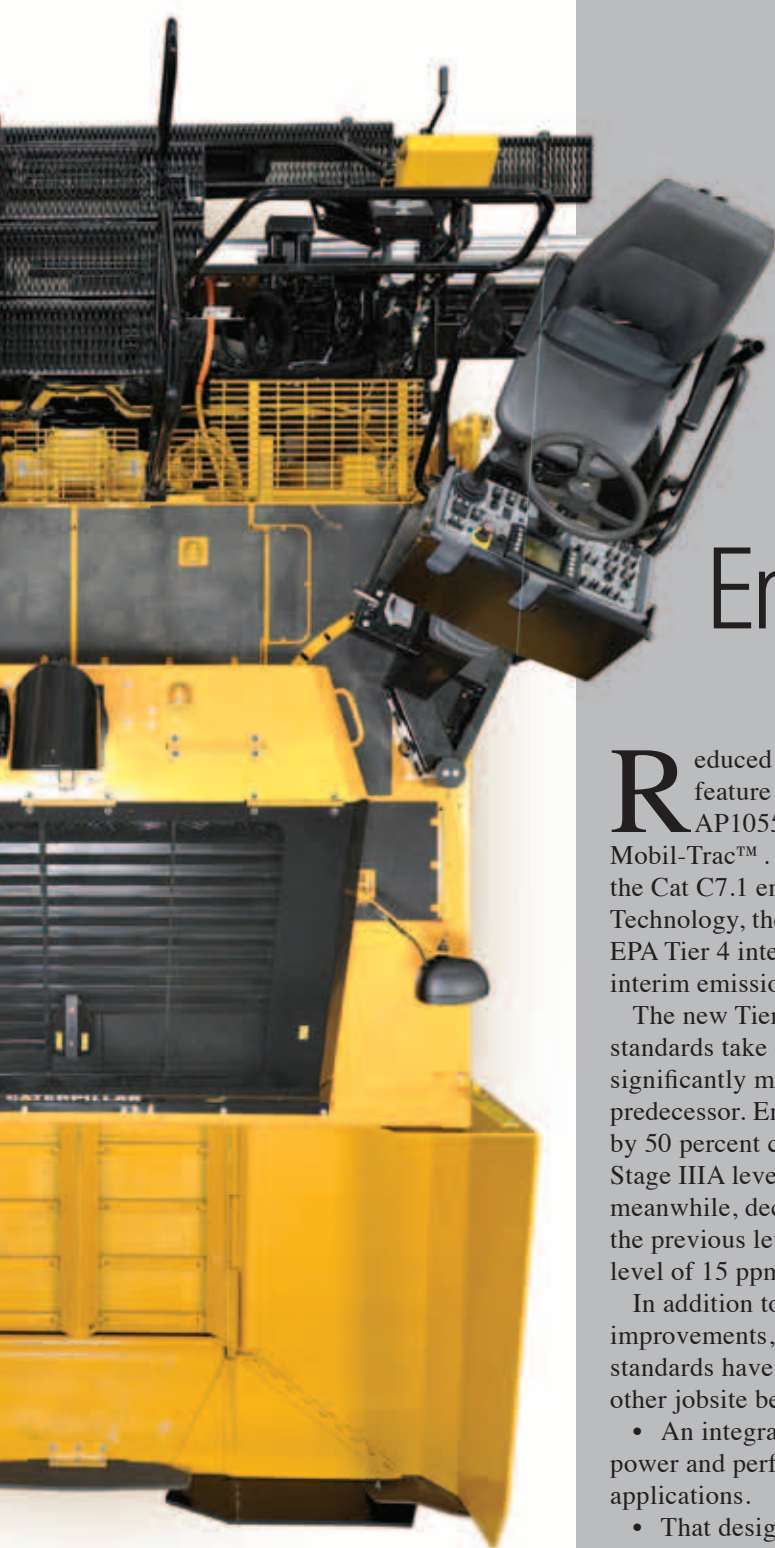
without emptying the hopper.

The AP1055E provides clear sight lines for optimal performance. Operators appreciate the independent stations that extend beyond the frame on both sides, as well as the matching movable controls.

There are many other highlights of the paver. Among them:

- The cooling system redirects hot air away from the crew.
- Durability is evident in the thick floor plates, heavy-duty chains, and stout conveyor bars. The result is lasting performance and lower lifetime operating costs.
- Greaseable bearings with remote fittings flush contaminants away from seals for longer life.
- The undercarriage has an average belt life of 4,000 hours. Self-tensioning accumulators, center guide blocks and rugged internal belt cables ensure durability. Rubber-coated components shed asphalt, preventing accumulation.
- Easy access to service points and extended intervals between preventive maintenance reduce costs.

High-production applications require pavers that are powerful, reliable and fuel efficient with easy-to-use features that promote smoothness and high tonnage throughput. Ask the paving experts at our dealership how the new AP1055E meets these objectives and more in your applications. ■



Paver Meets New Emissions Standards

Reduced emissions are a key feature of the new Cat® AP1055E Asphalt Paver with Mobil-Trac™. Thanks to advances in the Cat C7.1 engine with ACERT™ Technology, the paver meets U.S. EPA Tier 4 interim/Europe Stage IIIB interim emissions requirements.

The new Tier 4/Stage IIIB standards take effect this year and are significantly more stringent than their predecessor. Emissions are reduced by 50 percent compared to Tier 3/Stage IIIA levels. Particulate matter, meanwhile, declined 90 percent from the previous levels. Sulfur is now at a level of 15 ppm (mg/kg).

In addition to the environmental improvements, the new emissions standards have led to cost-savings and other jobsite benefits including:

- An integrated design that boosts power and performance across applications.
- That design also improves reliability; extends the life of machines and components; and minimizes maintenance and service requirements, as well as operating costs.

To help meet the new standards, the Cat C7.1 engine includes a

regeneration system that activates when conditions are optimal, during either operation or idling. Passive regeneration will occur under most operating conditions when normal load conditions and exhaust temperatures exist. Active regeneration occurs when the diesel particulate filter (DPF) has an elevated soot level. The system is transparent and no operator intervention is required.

In the case of the AP1055E, the operator can automatically interrupt regeneration by returning to work.

Caterpillar and Cat Dealers have taken many steps to ensure a smooth transition. Cat field technicians worldwide have been expertly trained to support the technologies of Tier 4/Stage IIIB engines.

In addition, the engines and pavers have been field-tested with Caterpillar customers. Those efforts were made to ensure the machines didn't simply meet new emissions requirements, but also met customer expectations for performance and productivity. The result is reduced emissions combined with working advantages that are real, measurable and sustainable over time. ■

▲ In addition to environmental improvements, the new emissions standards have led to benefits such as extended machine and component life.



Comfort, Convenience and 'Wow!'

Guests to the new Visitor Center at Caterpillar Paving Products headquarters will find comfort, convenience—and some, “Wow!” too.

“We continue to invest and show that we are serious players with a long-term commitment to the paving business,” said Lieven Van Broekhoven, Worldwide Sales and Marketing Manager for Caterpillar Paving Products.

The visitor center, in the U.S. city of Maple Grove, Minn., makes an instant impact. Enormous photographs of paving jobsites greet visitors as they enter. A showroom, thousands of square feet in size, houses products from across the Cat® Paving line. Floor-to-ceiling windows, meanwhile, rush in natural light.

As the guests continue their stay and conduct business—whether examining equipment, meeting with management, touring the factory or undergoing training—they increasingly will appreciate the center’s comforts and conveniences, too. They include:

- A lounge area, including big-screen television, exclusively for visitors
- Wireless internet access

- A stocked kitchen
- Designated, private areas to make phone calls or handle work projects
- An on-site demonstration area
- A machine training lab

Also housed at the headquarters is the Solutions & Learning Center, which gives visitors quick access to Caterpillar knowledge. “Training personnel are on-site, as are engineers, and questions can be quickly answered,” Van Broekhoven said.

Proximity to the factory is another convenience. “Customers can see how the equipment is built, and then examine machines more closely in the safety of the showroom,” he said.

Other Global Investments

Significant investments also are being made at other Caterpillar Paving Products facilities. The plant in Minerbio, Italy, has been modernized, and its production capacity increased. Similar improvements have been made at the Xuzhou, China, plant.

Creating a visitor center in Europe is a likely future step. Look for the facility to provide comfort, convenience—and a little more.

“We went for a, ‘Wow!’ factor when we built this facility,” Van Broekhoven said while at the new Visitor Center. “Those who have been here have confirmed we achieved it.” ■



^ The Cat® CB64 features new technology and improved visibility.



^ Randy Kramer and Kent Peterson

'Every Step Matters'

New roller makes positive impression on contractor

*BITUMINOUS
ROADWAYS*

Bituminous Roadways believes in controlling all aspects of the paving process, and for good reason: Every step is just as important as the next.

One of the final steps, compaction, is crucial in determining if the job is done right—whether goals are met, and often whether a bonus is paid.

“The compaction process can’t turn a bad job into a good one,” said Kent Peterson, president of Bituminous Roadways. “But it can do the opposite: Turn a good job into a bad one.”

The New Roller at Work

The firm last fall completed a street paving job near Minneapolis. The new Cat® CB64 Vibratory Asphalt Compactor handled compaction.

The paver placed 771 metric tons (850 U.S. short tons) on the first day the roller was on the job, and the CB64 easily kept pace. Besides production, both the operator and Randy Kramer, the Bituminous Roadways operations manager, were pleased with the roller’s visibility. “It’s one of the first things I noticed,” Kramer said.

The vibratory roller also was able to achieve compaction in three passes, despite the cooler seasonal temperatures. (On future jobs, it sometimes would complete breakdown compaction in only two passes.) The early and subsequent success was no surprise given the research Bituminous Roadways conducted prior to the purchase.

“It wasn’t a decision we jumped into,” Kramer said. “Our decision-making process included a visit to the Caterpillar plant and a tour of the production line. We were able to see the new and improved features they were including before the product was launched. It made us even more confident.”

Among the features that sold the company on the roller were:

- New technology, including a control lever with a connected brake.
- Improved visibility.
- A spray system that provides efficiency and consistency.

Peterson had his own reason for preferring the CB64. “I like the size,” he said. “The shorter drums are more maneuverable. We don’t only use it on roads, but also in parking lots. We need our equipment to be versatile, too.”

Some of that versatility has become a necessity. “There have been times we’ve had to adjust to stay busy with the recent economy,” Kramer said. “We’re not locked into highway paving projects, or parking lots. We do more variety now. Before the downturn we took on lots of private business. Our mix has shifted to more public work.”

Added Peterson: “We can’t buy new machines every time we switch from a public job, which has more straight-production rolling, to a private job, where maneuverability might matter a little more. We need to stay productive in both applications.”

Headquarters:
Mendota Heights, MN

Services:
Design, construction and maintenance of all asphalt services

History:
Opened in 1946 with a three-man crew and an asphalt plant

Sustainability leaders:
In 1975, became the first to use recycled asphalt in Hot Mix Asphalt; in 1996 was the first to recycle roofing shingles into HMA

Current sustainable practices include:
Warm mix; porous asphalts; eco-friendly asphalt plants; and the continuation of recycling asphalt and shingles

Awards:
Received two NAPA “Quality in Construction Awards” during 2010

CAT® CB64 VIBRATORY ASPHALT COMPACTOR

Engine: Cat® C4.4 with ACERT™ Technology

Gross power: 102 kW (137 hp)

Operating weight with ROPS/FOPS: 12980 kg (28,616 lbs.)

Turn radius, outside drum edge: 6070 mm (239")

Turn radius, inside drum edge: 3940 mm (155")

Compaction width: 2130 mm (84")

Overall width: 2335 mm (92")

Frequency: 42 hz (2,520 vpm)

Nominal amplitude, high: 1.03 mm (0.04")

Nominal amplitude, low: 0.41 mm (0.016")



An Operator's Perspective

The roller continued to work well as the company's operators logged more hours. Randy Paurus, an operator with Bituminous Roadways, worked the compactor for a good part of the fall. He found some of the "little things" added up to substantial improvements.

"Controlling the high amplitude and the frequency were easier with the CB64 than with other rollers I've operated," Paurus said. Fewer adjustments were needed, which meant more time compacting. When required, switches between settings were easy to make.

At 2130 mm (84"), the roller is 152 mm (6") wider than many of its counterparts, helping it efficiently cover the width of the mat. "That 6" makes a difference," Paurus said.

Paurus said the spray system might be the best new feature. "First, you can see the sprayer working," he said. With other systems, an indicator might say the water is running, but a hose could be unplugged or not fully operational, he said.

The biggest spray system improvement is the use of drum pads, Paurus said. "The pads are better than a

squeegee-type system," he said. "They disperse the water across the drum. The distribution is much more even and consistent. The pads also are more efficient. They still keep the drum wet, yet don't use as much water."

That efficiency became even more important as the season continued. With the arrival of cold weather, water was replaced with non-freezing windshield washer fluid. The spray system efficiency proved even more beneficial based on the high cost of the fluids.

An auxiliary tank made the conversion an easy one. "I could fill that tank with fluid, turn a valve and get to work," Paurus said. "I would turn on the pump, and it would draw the washer fluid. There would be no freezing, and it was a very simple adjustment to make."

The Final Step

The operator likes the roller, and so does the company president. "By controlling the plant and the crew, we can ensure the cost, quality and timing," Peterson said. "Every step matters."

The final step that brought everything together was led by the new Cat CB64. ■





THE DEALER MAKES A DIFFERENCE

Bituminous Roadways' purchase of a Cat® CB64 Vibratory Asphalt Compactor didn't just include yellow iron. The vibratory roller also came with unparalleled support from Ziegler Cat.

"Ziegler wanted to make sure everything was right with us, and they did," said Kent Peterson, president of Bituminous Roadways.

For example, Ziegler didn't just deliver the new machine, but hauled away the old one. Representatives from the dealership also remained on-site to make sure the new equipment worked properly.

"Representatives for Caterpillar and Ziegler were out there with the crew," Peterson said. "That showed us something. They seem more focused on their customers than ever, and they provided great support for their equipment."

"When you deal with them, they know the product. With their competitors, that's not always the case."

Ziegler handles much of Bituminous Roadways' equipment maintenance. That partnership recently created an unexpected benefit when Bituminous Roadways hired a new equipment manager.

"Ziegler has records that helped the new manager get a handle on things," Peterson said. Beside machine history, reports and recommendations were provided regarding anticipated maintenance needs.

Ziegler also participates in Bituminous Roadways' annual training event. "We feel like these are the best crews we've ever had, and part of that is certainly a result of the in-depth training," Peterson said.

Training benefits go well beyond safety and productivity. "If you're a good performer, you don't want to work next to a poor performer," Peterson said. "The training brings everyone up to the same level, or at least close to it. They're all an integral part of a very productive team."

Experience of commissioning engineers benefits customers worldwide

Tips From the Field

Commissioning engineers from Caterpillar Paving Products visit jobsites around the world to help customers maximize the built-in potential of their new machines.

Whatever the location or application, there are some common themes and challenges encountered. Here is a brief story of those commissioning engineers, as well as some of the challenges they encounter—and the solutions they help provide. ■

Name: Peter Wan

Paving experience: 17 years

Home base: Singapore

Peter works with all facets of the paving business—including mills, pavers and reclaimers. “Helping customers get started is a key part of what I do,” he said.

Peter also helps the decision makers choose the equipment that’s the best fit for their applications. In particular he helps customers involved in milling and reclaiming applications.

His answer to most questions is one word: demonstration. “We’ll demo a machine during the purchase process,” Peter said. “That helps customers understand exactly what they’re getting, and ensures the machine matches their needs.”

It also helps both the Cat® Dealer and the customer know what is required in terms of operator and crew training. They then can schedule accordingly.

“We believe in training on application usage,” Peter said. “The successful customers understand the importance of training and applying it back at the jobsite.”



Peter Wan, Commissioning Engineer, is in orange.

Name: Debin Sun
Paving experience: 20-plus years
Home base: Beijing, China

Debin has extensive experience in product support, and knowledge gained in these prior responsibilities is an important part of the input he shares with customers today. “I’ve provided support to dealers of the Greater China area, including application and service training, commissioning, delivery and real-time troubleshooting,” he said.

Previous positions have taken Debin to many jobsites, where he has seen virtually every application and the associated challenges. His experience inside of Caterpillar helps him assess customers’ needs and the ability of Cat machines to solve problems.

“I understand Cat systems and the culture well; I understand the related market and customers and their habits, thoughts and culture,” Debin said. “I pride myself on being able to take all these factors into consideration to meet the needs of my customers.”



Name: George R. Cromwell
Paving experience: 36 years
Home base: Piracicaba, Brazil

George works in all countries south of the U.S. border. His many travels have taken him to diverse jobsites in terms of geography, equipment and application. The levels of training also can vary greatly from one jobsite to another.

“I’ve found that training is crucial to the improvement of crews,” George said. “I’ve been involved in training and have seen the benefits it provides firsthand. But if the supervisors don’t require the crews to use that training, they’ll miss out on the benefits.”

George makes sure machines—reclaimers, cold planers, pavers and compactors—are running properly when delivered. He stays until crews are able to leverage all the productivity and efficiencies that are built into the machines. He also arranges additional training to help the customers get the most out of their equipment.



The word is spreading about Cat machines and product support. Four years ago, there were only 50 Cat machines, excluding compactors, working in George’s territory. “Today, we have a population of more than 300, again excluding compactors, and we have only begun to penetrate the market,” George said. “Clearly Cat machines are a good fit for this region.”



Name: Chuck Dault
Paving experience: 20-plus years
Home base: Minneapolis, USA

Chuck grew up working on engines. He eventually became a certified mechanic, a background that has served him well.

Chuck came to work at Caterpillar in 1999 as a cold planer demo applications specialist, having earlier demonstrated the machines. He continues that demo work today while conducting operator training schools. He also works on the launch of new milling products, but spends much of his time in the field, helping acclimate crews to their new purchases.

The first step is basic: Helping crews find the controls and switches and adjusting to any new configurations. Chuck also uses the commissioning as an opportunity to remind crews of the mill's role in producing a smooth mat.

"For the paver to lay down a smooth mat, it's extremely important

for cold planers to leave a finished product of a smooth, deviation-free milled surface foundation," he said.

The reminders during the commissioning are a start, but ongoing training makes the difference. "We emphasize the importance of attending application and service training classes for each customer's specific machines, so both owners and operators can become efficient in making their machines perform to their maximum ability," he said.

The best customers also focus on safety, he said. "First and foremost is safety. Teach safety, train in safety, perform safety, work safely."



Name: Chew Keng Kok
Paving experience: 14 years
Home base: Singapore

Chew has been involved in some in-depth and challenging paving projects during his career. Among them: laying volcanic ash base course in the Philippines and sealing the wall of a Thailand hydro dam.

The lessons he learned during those projects, as well as others, gave him a broad understanding of the industry and application requirements. This is important since he covers a diverse geographic area including Australia, India, the Middle East and Hong Kong, Korea and other parts of Asia.

Cat Pavers and Cold Planers are the machines he most frequently commissions. He finds the customers with the most success are those who are able to take advantage of all the

machine's benefits. "With pavers, I help operators learn how to use the leveling sensors," Chew said. "When they do, the surfaces are much smoother. I also advise them to keep trying, to practice. Training is essential. That's how they improve."



Name: Davide Dalla
Paving experience: 23 years
Home base: Bologna, Italy

Davide works with customers on all paving models. His experience as an operator helps him understand what is going through the minds of the crew when they take delivery of a new machine.

He typically finds operators eager to learn. "Usually there is no problem, or very small ones that can be fixed easily," he said. "You have to adjust the machine according to the characteristics of the job application and the material the machine is working with."

Davide makes sure operators and

others on the crew understand their responsibilities to help keep the new equipment properly maintained. "We help them set the right parameters, and teach the operators the correct actions to ensure that the machines are in the best running conditions," Davide said.

He also makes certain that Cat Dealer operators are up to speed on changes in newly released models so they can share their knowledge with the customers.

The customers also need to always strive for improvement. "The most

successful businesses have skilled operators that take advantage of what they learned during the machine commissioning, and were trained specifically to know all component parts, service requirements and maintenance schedules to keep the machines performing at peak efficiencies," he said.

A yellow Caterpillar asphalt compactor is shown from a rear-three-quarter view, operating on a newly laid asphalt road. The operator is visible in the cab, wearing a hard hat and safety vest. The background shows a clear sky and some greenery.

**AGGRESSIVE
WHEN YOU
WANT IT,
GENTLE WHEN
YOU NEED IT.**

**VERSATILE CAT® ASPHALT COMPACTORS USE
PROVEN TECHNOLOGY THAT IS EASY TO SET UP
FOR ANY MIX OR APPLICATION.**

Not every mix and application is the same, so your asphalt compactor should be versatile and easy to set up to match performance to ever-changing conditions. Cat® Asphalt Compactors get the work done on the breakdown pass, when the mat temperatures are higher and conditions are optimal for compaction.

To get the real story on asphalt compaction, visit your Cat Dealer today.

www.cat.com

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TODAY'S WORK. TOMORROW'S WORLD.™