

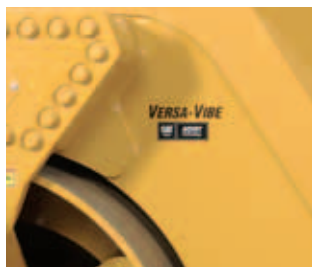
PAVINGNEWS

A Caterpillar publication serving the global paving industry



Reclaiming in Russia

Cat® technology helps launch construction firm



Two Machines in One Compactor

Single roller compacts
thin and thick lifts

CATERPILLAR®

Picking the Ideal Business Partner



Lieven Van Broekhoven
Worldwide Sales
and Marketing Manager

As usual, there is a lot about Caterpillar technology in this issue and I like to read how technology helps us succeed in business. But, the story (pages 4-7) that really grabbed my attention was the effort of Russian conglomerate, Sunflower-M Group (SFM), to create a start-up construction business by designing and building a new logistical facility and supporting road network for itself just outside of Moscow.

SFM expanded by hiring experienced construction industry professionals and formed a new construction division to plan and build the project. They also purchased, for the first time, a substantial fleet of Caterpillar earthmoving and paving equipment.

Construction of the new facility and infrastructure is a pilot project and the first step that SFM is taking to prepare for working on projects for future customers. They're in the business for the long term and having Cat® equipment and the support of the Caterpillar team will help them now and in the future. That's the kind of partner Caterpillar is. We add value to the business transaction.

For example, you'll read in the story about the hands-on involvement of the Caterpillar Paving Products Territory Manager. He helped coordinate the business between SFM and Dealer Zeppelin Moscow. Selecting the models to match production requirements. Tailoring support agreements to take worry away from the equipment owner. Arranging for commissioning engineers to start up machines and train operators. The kind of industry expertise that the Territory Manager provides helps prevent problems before they even start.

Of course, Cat Dealer strength is legendary and Zeppelin is one of the strongest in the world. They helped get the fleet up and running and they'll keep it running.

Caterpillar, Zeppelin and SFM are now business partners who share some common goals. First, bring this first project to a successful and timely completion. Along the way, learn how to work together so little issues don't become big problems. Finally, build the trust that is the mark of a long-term business relationship. I believe we'll see that SFM chose wisely when they picked Caterpillar. ■

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Russian company moves into the construction business

Sunflower-M Looks to a Bright Future



▲ The RM500 rotary mixer and its feed truck are followed by the Cat Motor Grader.

larger national highway.

As impressive as the makeover of the site, in the city of Mytishchi, is the transformation of Sunflower-M Group. The company is building the facility and all roads leading to it—and doing so despite little experience in the construction industry. The logistics company was adamant about wanting its project to be completed perfectly—as planned, and on time. Instead of hiring another firm, Sunflower-M Construction Group (SFM) was created in 2010 to take on the construction.

SFM is planning to build more of the same type of facilities in the Moscow region, according to Sergey Ezhov, territory manager, Caterpillar Paving Products, Moscow. The work is essentially a pilot project for the company, said Ezhov, who consulted with Cat Dealer Zeppelin Moscow during the sale of the machines to Sunflower. Eventually SFM will leverage the equipment and technology on many other projects, such as airport runways, seaport terminals, highways and building foundations.

Getting started

How can a firm jump into an industry that requires so much expertise? Construction specialists joined the company and brought with them skills, experience and high standards. Technology built into Cat road construction equipment also has helped the firm seamlessly move into construction.

Proven, reliable Cat equipment and the 3D automatic leveling systems available through Cat Dealerships are among the most helpful of these new technologies. SFM says that new road construction technology and modern equipment enable it to optimize costs at all stages of construction; complete jobs speedily; and provide world-class quality in road construction.

The company uses the automatic leveling systems on many machines, including its Cat 14M Motor Grader and D6N Track-type Tractor. The systems enable quick, efficient grading passes. The technology was so easy to use that it helped crews become productive from the first day and in multiple applications.

A Cat® RM500 Rotary Mixer is busy at a Russian jobsite about 20 km (12 miles) northeast of Moscow. The work is changing the area dramatically; what once were 30 hectares (74 acres) of vacant land soon will be home to a new logistical facility for the Sunflower-M Group of Companies. The project includes the logistics terminal as well as offices, parking lots and roads that feed into a

“SFM Construction Group wants everything to be on a very high level and it doesn’t want to rely on somebody else. This is one of the most advanced companies in Russia.”

“Sunflower-M Construction Group has a full line of Cat road construction equipment for all stages of road construction from base leveling to the paving of wearing courses,” said the company.

Cat Dealer helps

SFM has an existing facility nearby, but started from scratch on the new site in April—just after the snow had melted. The company knew the project would require much soil stabilization, profiling and other preparation work.

For this, and the accompanying roadworks, the company wanted a modern fleet of machines. They were acquired through Zeppelin Moscow, the Cat Dealer for western Russia and Moscow. Zeppelin Moscow helped SFM assess what equipment was required for the job, and also to understand the machines’

strengths, capabilities and technology.

To carry out a portion of the necessary work, SFM Construction Group bought the Cat RM500 Rotary Mixer with a Cat C15 six-cylinder diesel engine that provides 403 kW (545 hp) of power at 2,000 rpm. This machine offers productivity enhancements that include three interchangeable rotor options—all 2,438 mm (8') cutting width—increasing cutting depth capacity and providing better gradation and versatility. One machine now delivers both full-depth reclamation and/or soil stabilization. The universal rotor has a maximum cutting depth of 457 mm (18"), while the soil and combination rotors have a maximum cutting depth of 508 mm (20") each.

The RM500 is able to create strong bases for industrial buildings by mixing the existing materials with measured



▲ The Cat RM500 Rotary Mixer on the 30 hectare site near Moscow is followed by the Cat CS533E Vibratory Soil Compactor.

additives to improve the engineering and load supporting characteristics of the material. The machine also creates solid bases for roads, parking lots and other open sites. By utilizing existing materials, earth-moving costs are dramatically reduced.

“Soil stabilization is an efficient way to build bases for projects such as roads and parking facilities, and consists of in-depth pulverizing and mixing of the ground with organic or mineral stabilizing agents followed by compaction,” the company said. “Our equipment allows the efficient stabilizing of ground down to 50 cm (20”) in one working pass with precision batching of additives.”

More than reclaimers

In addition to the RM500, Sunflower-M Construction Group’s additional Cat machines include:

- D6N Track-type Tractor
- 14M Motor Grader
- 320D Hydraulic Excavator
- CS533E Vibratory Soil Compactor
- AP655D Asphalt Paver
- CB534D Vibratory Asphalt Compactor

Such an upfront commitment and investment in Cat machines was a bold move for the company. However, the equipment is required as SFM plans to increase its profile in the construction sector.

The equipment also is essential to the initial project. In addition to the new logistics facility, the project will include the construction of roads within the site and a huge open parking area. A 1.5 km

(0.9 mile) stretch of road just outside the facility will be built to link into a Volkovskoye federal highway, and thus into the wider system of major roads.

Work has proceeded as planned and on schedule. Soil stabilization was completed at the site in August, and paving in September.

SFM’s machine purchases show it recognizes Caterpillar and Zeppelin Moscow as a full-line, one-stop supplier that can meet its end-to-end construction needs. Also appreciated was the timely machine availability, as well as the quality provided.

“It is being built to very high standards,” Ezhov said of the logistics center. “SFM Construction Group wants everything to be on a very high level and it doesn’t want to rely on somebody else. This is one of the most advanced companies in Russia.

“However, the company is comparatively new in the road construction and soil stabilization business, and it is exciting for Caterpillar that SFM decided to buy our equipment, which is backed by dealer support and servicing agreements to fully support the machines.”

Timing and technology

The timing is right for SFM, Ezhov said, and now the equipment and associated technology are in place to help launch the construction division.

“In addition to the federal road construction project, there is a big need in Russia for the construction of local roads,” Ezhov said. “For this Sunflower-M Construction Group has a very good set of equipment.” ■



▲ The CS533E Vibratory Soil Compactor at work in a future warehouse.

“Our equipment allows the efficient stabilizing of ground down to 50 cm in one working pass with precision batching of additives.”



▲ A Cat Motor Grader profiles the site behind the RM500 Rotary Mixer before compaction.

Two Machines in One Compactor



Versa-Vibe™ helps properly compact both thick and thin lifts

All your paving equipment needs to be able adjust to specific application requirements, including the placement of thick or thin lifts. That includes asphalt compactors, which increasingly must handle thinner lifts and the amplitude and frequency settings that go with them.

The need for a single roller to properly compact both thick and thin lifts is the reason Caterpillar developed the Versa-Vibe™ Vibratory

System. The system handles a wide range of compaction equipment requirements in both high amplitude/low frequency, or in low amplitude/high frequency settings. Simply put, the system enables a single machine to perform at high speeds on thin lifts and overlays, or at low speeds on thick lifts and coarse mixes.

That versatility has key advantages, including cost savings. In fact, the Versa-Vibe System creates such versatility that one asphalt compactor



^ Versa-Vibe machines achieve target densities in fewer passes.

can accomplish what otherwise would require two very different machines.

That means Versa-Vibe helps you eliminate:

1. The cost of an asphalt compactor dedicated to a single type of compaction
2. The transport of that machine to and from the jobsite
3. The maintenance of that machine, and the associated costs

Other key advantages of the Versa-Vibe System include:

Productivity. With asphalt compaction, productivity can be measured as the number of passes required to reach a target density. That number depends on the stiffness of the mix and the weight and drum movement of the vibratory compactor. Mixes that pass beneath the screed at more than 87 percent of theoretical density might only require a “typical” compactor.

However, Versa-Vibe compactors have a significant production advantage over typical rollers when the mix is stiffer. The Versa-Vibe machine will achieve target densities in fewer passes because of its dual vibratory drum/higher amplitude compaction. Job studies verify that tough compaction applications need dual vibrating drums with high amplitude. In certain applications, high frequency and high rolling speeds can increase productivity by as much as 50 percent over traditional compaction methods.

Versatility. Some competitive rollers have lower amplitudes in their single vibratory drum, yet they have no high-frequency option. At best, some have medium frequency (3,000 vibrations per minute) in the vibratory drum and 2,500 vpm in the oscillatory drum. This makes the rollers ineffective on high-production, thin lift projects. With these rollers,

compaction sometimes can't be achieved. Worse, the mat can be damaged if it has cooled considerably before the compactor is able to reach it. A lower-frequency roller also can leave impact marks in the surface of thinner mats if traveling faster than the vibratory system will allow in regard to impact spacing.

Simplicity. Cat® Asphalt Compactors offer straightforward vibratory choices that are easy to implement. It starts when the operator selects either “light” or “heavy” amplitude with the handwheel. Next, with the flip of a switch, the operator selects the “low” frequency option of 42 Hz or the “high” frequency option of 63.3 Hz. The operator can switch between high amplitude or high frequency while the machine is operating.

With some other rollers, the vibratory and oscillating drums have different variable frequencies—yet



^ An operator selects the frequency with the flip of a switch.

only a single frequency gauge. That means the amplitude changes only as the operator adjusts frequency. The result: The roller never properly matches the job's demands. In addition, operators find this system difficult to understand and therefore seldom make the proper adjustments. (See the sidebar for an explanation of how Versa-Vibe works.)

Maintenance. The Versa-Vibe System is virtually maintenance-free with a 3,000-hour/3 year maintenance interval. Other systems typically feature two belt-driven weight shafts that require maintenance every 1,000 hours.

Rollers with Versa-Vibe feature all the other benefits you've come to expect from Cat products, including the unparalleled customer support and parts availability. Call your Cat Dealer for more information about the benefits of Versa-Vibe, including replacing two application-specific compactors with one fully adjustable machine. ■



HOW IT WORKS

The foundation of the patented Versa-Vibe™ Vibratory System is similar to the standard vibratory system: The rotation of an unbalanced weight shaft provides drum movement, or amplitude. However, on the Versa-Vibe System, a fixed eccentric weight is coupled to a two-position counterweight partially filled with steel shot.

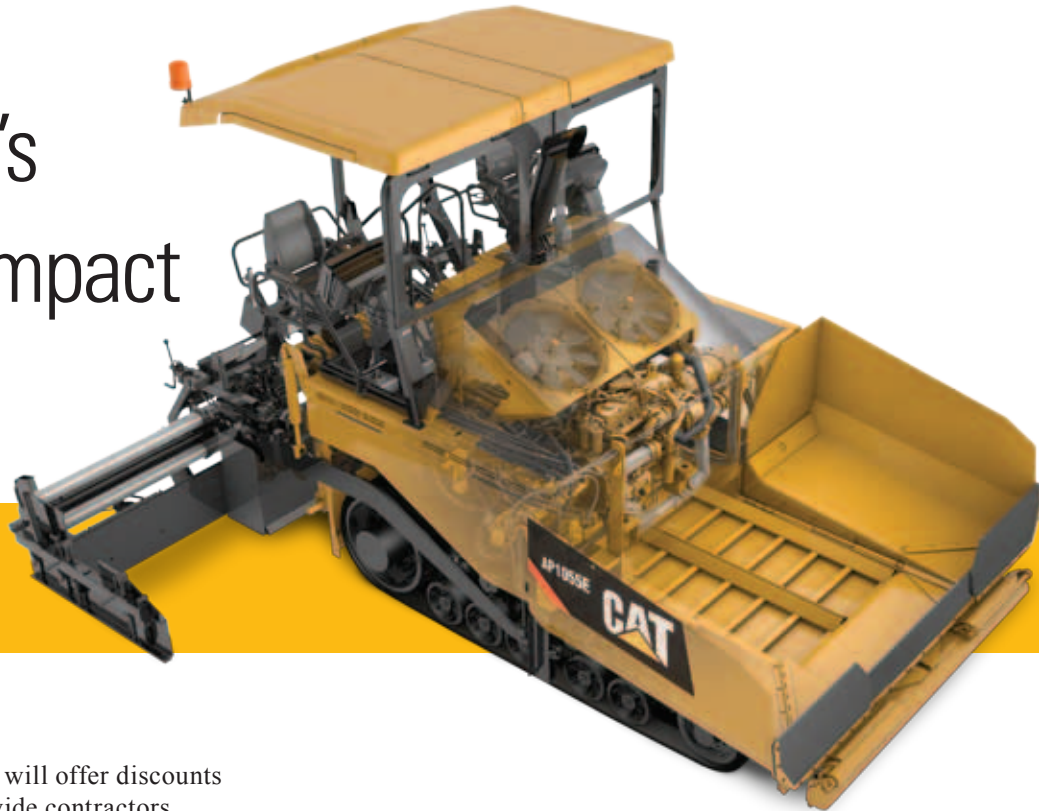
By using the hand wheel on the side of the drum, the operator selects "H" to set the counterweight in a more eccentric position for higher amplitude or "L" to set the counterweight in a more balanced position for lower amplitude.

When the operator selects high frequency, the weight shaft spins in a clockwise direction, the steel shot in the hollow weight are confined adjacent to the eccentric weight, and the lower amplitude is created. When the operator switches to low frequency, the weight turns counterclockwise, the steel shot are moved to counterbalance the eccentric weight, and higher amplitudes are automatically created.

In total, there are four amplitudes and two vibratory frequencies.

Paver Rebuild's Bottom-Line Impact

Contractors reduce parts
costs and avoid downtime



A new program from Caterpillar will offer discounts on thousands of parts and provide contractors with a powerful motivation: Reducing costs and downtime.

“Customers overall will receive a better price on parts,” said Rich McCrea, Parts Sales Support Consultant for Caterpillar Paving Products. “The program also encourages them to have their machines evaluated and repaired before a problem occurs on a job. Avoiding that downtime has significant cost benefits as well.”

The new parts plan is called the Paver Rebuild Program. It is being unveiled regionally, with plans for a global expansion in the future.

Previous paver programs focused on wear parts. Paver Rebuild takes those efforts a step further and focuses on all parts. “Anything that can be repaired on the paver will be discounted,” McCrea said. There are thousands of parts numbers associated with Paver Rebuild, compared with 200 that were part of a previous program.


With Paver Rebuild, a paver is brought in during the off-season or during a convenient time for the customer. A certified Cat® Dealer service technician thoroughly assesses the machine. Potential problems are spotted early, and any needed component rebuilds are completed when necessary. Wear parts also are replaced.

Other key benefits of Paver Rebuild include:

- Machines are built to like-new specs.
- All new parts are covered by the standard Cat parts warranty.
- Improved parts stocking at dealerships in advance of the program helps ensure availability.

- The rebuilds can be done in the off-season in colder climates.
- In warmer climates, where the season doesn’t necessarily end, the rebuild work can be planned around key jobs.
- Service technicians are able to benefit from repair and rebuild data gathered around the world.
- Service technicians are trained and experienced in paver work.
- Financial help for the rebuilds is available through many Cat Dealers.

“The contractor has a machine that performs like new, and the cost of Paver Rebuild can be quickly recovered in improved performance, increased productivity and the avoidance of costly downtime,” McCrea said. ■



Consistent From Start to Finish

New paver helps contractor meet specs

The priority for the Interstate 25 project near Albuquerque, N.M., came down to a single word: smoothness.

The importance of smoothness is nothing new to contractors who handle highway and interstate work. Yet those contractors know that while the goal might be summed up in a single word, it's the other challenges that can complicate a job. And when those challenges take the focus away from that single goal—smoothness—time and money can be lost.

“We have to hit our smoothness goals, and also achieve production targets,” said Henry Smith, operations manager with Mountain States Constructors Inc., the firm handling the paving project. “That requirement isn’t anything new to us, but it’s an ongoing challenge, and certainly not something we ever take for granted. Meeting those specs takes work.”

Project description

The state of New Mexico supervised the 4.2 km (2.6 mile)

interstate expansion. The road was widened from four lanes to six, including 3.6 m (12') shoulders on each side. A median wall also was built.

The existing roadway was completely replaced. “We took the entire road all the way down to the subgrade, rebuilt the profile and then rebuilt the subgrade,” said Smith.

Three lifts of asphalt, totaling 203 mm (8"), were placed on the subgrade. Bonus pay was based on the IRI. The spec for maximum pay was 41.

Milling

The project started with milling the existing four lanes of highway. A Cat® PM201 Cold Planer removed the asphalt. The material was transported to the nearby asphalt plant for recycling. The mill also picked up the old base course and recycled that, too.

“With that big mill, we took out 8" (203 mm) of asphalt and 6" (152 mm) of base down to the subgrade,” said Brian Wanner, foreman on the jobsite.

New drainage pipes were placed, followed by a minus 19 mm (3/4") subgrade. A Cat 140M Motor Grader created a new subgrade profile.

Then came the median and concrete walls, followed by the 152 mm (6") base course of recycled material, and finally the asphalt.

Paving

A Cat AP1055E Asphalt Paver with AS3301C screed handled the three lifts. The first lift was 76 mm (3"), and the second and third were 63 mm (2.5") each.

Smoothness was always on the mind of the crew. “It’s very critical in this state,” Smith said. “For us, achieving that targeted smoothness is all about consistency. We want constant motion. We want the rollers equally spaced so they’re completing consistent passes at consistent temperatures.”

A remixing transfer vehicle delivered the asphalt to the AP1055E.



^ The crew's pace varied given the temperature fluctuations.

The operator and screed man kept a close watch on the paver's pace and the material flow. “We always have the auger half full—we follow that and other basics,” Smith said.

That previously mentioned consistent movement is another of the basics. The crew's pace varied because

“We took the entire road all the way down to the subgrade, rebuilt the profile and then rebuilt the subgrade.”

the temperatures in New Mexico can fluctuate greatly in a single day. The paver has to work at a pace that enables the compactors to hit target densities before the mat becomes too cool.

“We work at about 30' (9 m) per



^ The crew worked from the inside to the outside to help with jobsite traffic flow.



minute when it's cold, and much faster when it's warmer," Wanner said. That pace led to placement of about 317 metric tons (350 U.S. tons) per hour during the cooler months.

Mountain States operates its own plant, at least in part to help achieve consistency. The job utilized recycled mix, which was placed in trucks by three drops at the plant.

The mix arrived at a temperature of about 157° C (315° F) and was about 152° C (305° F) immediately behind the paver.

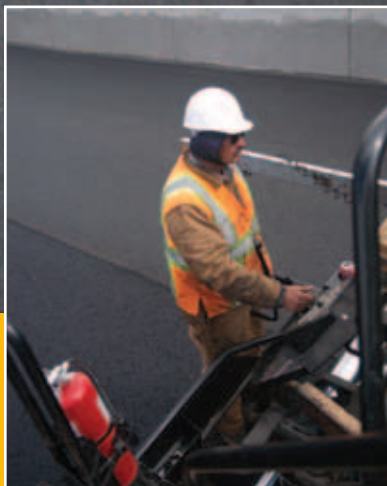
Longitudinal joints were placed on this formula: Add 6 mm (1/4") for every inch of asphalt.

Mountain States paves so that the top joint is always underneath the road stripe. It also staggers the lifts so the joints, too, are staggered.

This meant the 76 mm (3") bottom lift was placed at a width where the stripe would go. Next came a 63 mm

Mountain States staggers the lifts so the joints are staggered, too.

A Cat CB564D handles breakdown compaction.



Screed control enhancements lessen the likelihood of accidental adjustment.



(2.5") lift that was offset 30 cm (1"). The final lift, also 63 mm (2.5"), was placed in line with the first lift.

The crew worked from the inside (closer to the freeway divider) to the outside because it helped with traffic flow on the jobsite.

Compacting

A Cat CB564D Asphalt Compactor handled breakdown work. It made two passes—with a pass up, and then back, counting as a single pass.

The CB564D worked right up to the screed and then back to a temperature above 121° C (250° F). That distance varied depending on the ambient temperature.

The second roller, a Cat CB64, worked at temperatures between 107°-121° C (225°-250° F). The third roller, also a Cat CB64, worked at a temperature of about 85° C (185° F). Both the second and third rollers made

between three to six passes, depending on the readings and the temperatures.

While the ambient conditions fluctuated, the teamwork of the rollers did not. "It's all about spacing," Smith said.

Longitudinal joints weren't pinched, but rather compacted right to the joint.

"It was a straightforward job," Smith said. "Those are the ones you need to go smoothly. Every job is a challenge, to be sure, but when you apply a consistent process you can control at least some of the key variables." ■



▲ The CB64 completes intermediate compaction.

A POSITIVE FIRST IMPRESSION

The Cat® AP1055E Asphalt Paver, the newest in the Cat lineup, made its first appearance with Mountain States Constructors. The paving crew developed an immediate appreciation for the new machine's features.

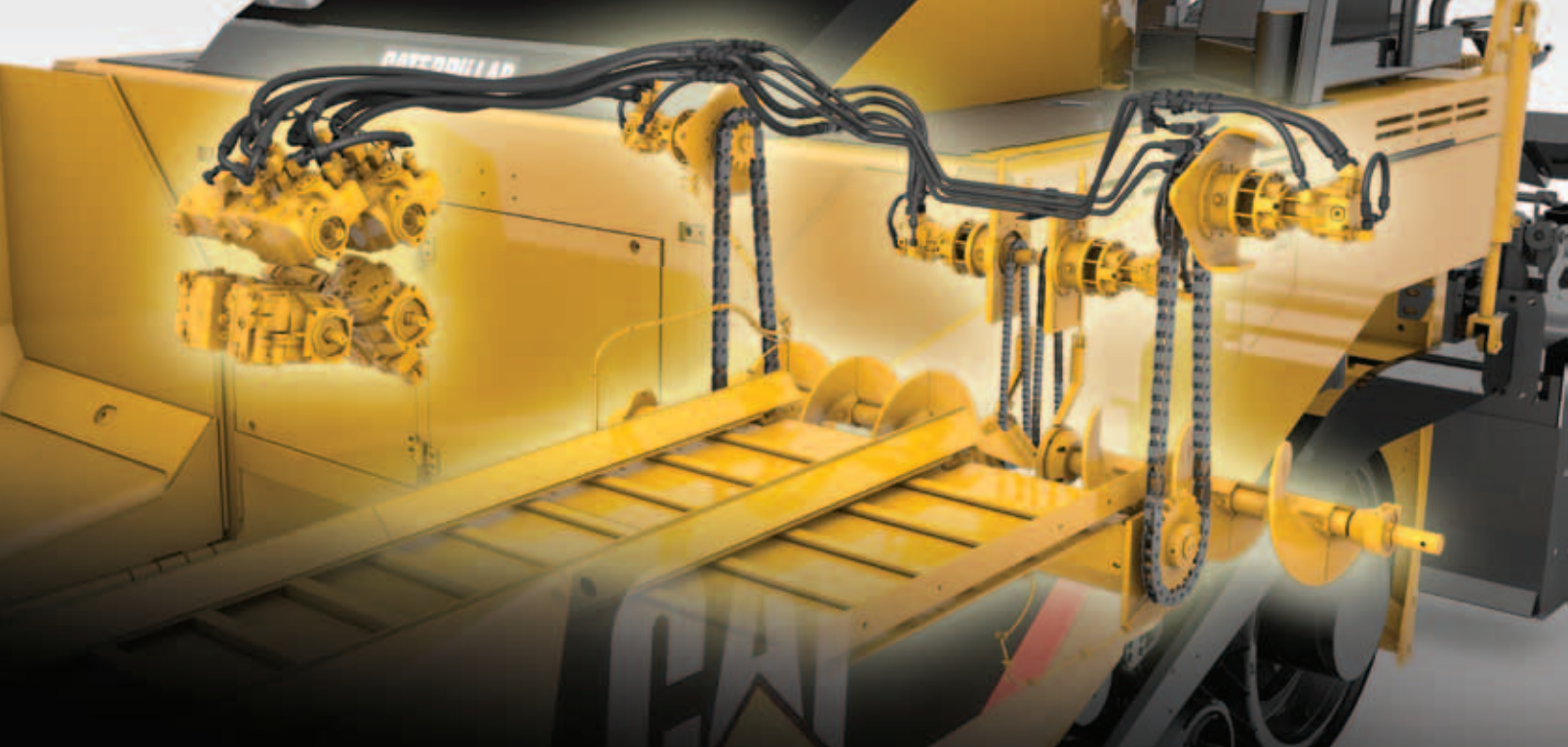
But the operator wasn't the first on the team to notice them. That honor went to Henry Smith, operations manager.

Smith spends much of his time bidding, planning and purchasing. He appreciates top-quality equipment.

"I've been doing this a long time," Smith said. "When I buy a new machine, I like to run it myself."

What did Smith learn during his test run?

- The steering. "I like the change of steering. It will hold the radius better than most pavers." Typically, the steering wheel will return to center when released. "On this paver, you can put it on hold and it will stay there. It helps the operator to hold his line in a curve." Smith believes this feature has improved the quality of the radius.
- Sound level. "It's quiet. Working on the back end of the AP1055E was nice."
- Screed controls. "I really liked the controls they're giving you on the screed for the guys," Smith said. In particular, switches have been improved so it's harder to bump them and accidentally make an adjustment.
- Safety touches. Smith likes the new light on the back of the operator's seat. "The operator now is more visible when his seat is extended outside the paver."
- Power. "That tractor is really, really powerful and provides a very solid platform," Smith said. "Even when you're offset on the screed, and pulling really wide on one side, the tractor doesn't have a problem pulling all that weight."



Improves your results, reduces your material use

Advanced Material Handling System Contributes to Profitability

Your paver, screed and compactors are key tools in your efforts to achieve smoothness. Yet they can only work with the materials they're given.

The quality of your paver's material handling system plays a crucial role in your success. Such a system enables precise and consistent delivery to your screed, an important contributor to smoothness. That

same material handling system also can lower overall operating costs by optimizing material utilization, maximizing component life—and even reducing the time required for cleanup at the end of the day.

Material handling systems on the latest new pavers in the Caterpillar Paving Products lineup continue to feature industry-leading material handling systems.

Automated delivery

- Four pumps enable individual control of each auger and each conveyor for precise mix delivery to the screed.
- A two-sensor system with ratio-control dials automatically adjusts mix flow when changing paving widths. A four-sensor system, meanwhile, is utilized with certain screeds to monitor conveyors and augers for precise mix control.

Conveyor and feeder system design

- The material feed bars are thicker and more durable than competitive designs, helping extend life.
- Narrowly spaced conveyor bars of 215 mm (8") ensure smooth flow to the auger chamber.
- Wear plates are made of thick, abrasion-resistant material for increased life.
- Conveyor chain guards eliminate exposure and preserve life.

Conveyor flow design

- The conveyor system pulls materials back to the augers.
- A narrower chain cover enables even delivery of material to the screed.
- The narrowness between the slat conveyors enables more material to be delivered at a slower speed, keeping flow consistent.
- Reversible conveyors enable material to be pulled from the back and toward the hopper when a paving pass is completed. This eliminates spilling when moving the paver to a new spot on the jobsite.

Variable-speed augers

- Deliver an even head of material from the center to the endgates.
- Are reversible and operate independently, enabling precise adjustment to speed.
- Reduce wear on augers, internal pumps and chain drives by delivering properly sized loads.
- Gradually build speed at startup, preventing system overload.

Hopper design

- Thick sidewalls provide ample support for hopper inserts.
- A tapered edge aids easy cleanout at the end of the day; the work can be accomplished with a typical square shovel.
- Foldable front apron with optional hydraulic lift simplifies cleanout.

The benefits are many, and the results are greatly improved, when all these factors are considered.

You will see improved mat quality because of advanced automated controls and well-designed components. Your profits will receive a boost from proper use of materials, durable components and seemingly simple—yet significant—service features such as bearings with remote grease fittings that flush contaminants from seals for longer life.

You also can further enhance your material handling system through options such as Cat® Grade and Slope, which provides accurate control and enables easy setup through a virtual display.

Call your Cat Dealer for more information on the increased profitability this advanced material handling system can deliver for your paving operations. ■



^ Narrowly spaced conveyor bars ensure smooth flow.



^ Variable speed augers deliver an even head of material.



^ The foldable front apron and optional hydraulic lift simplify cleanout.

Attention Grabber

Showroom impresses visitors to new Caterpillar facility

Babliton Cardoso, a Caterpillar Paving Products territory manager, recently brought customers from Peru, Brazil, Mexico and the Dominican Republic for a visit to the Caterpillar Paving Products Customer Solutions and Learning Center.

While the customers' countries of origin vary, their reaction to the facility in Maple Grove, Minn., doesn't. "The entire facility is a pleasant surprise for the customers," said Cardoso, a South American territory manager for Caterpillar Paving Products. "The showroom in particular has impressed all the visitors."

Tom Dittmer, also a territory manager, made a similar observation during a recent customer visit. "The showroom gave us so much to talk

about that we just ran out of time," Dittmer said.

The showroom: It's repeatedly what customers refer to as the highlight of their visit to the center. While earlier improvements to the facility are appreciated—for example, creation of areas that provide comfort and a chance to attend to pressing matters back home—it's the equipment showroom that makes the biggest impression.

- The showroom is loaded with Cat paving equipment: Pavers, Screeds, Cold Planers, Reclaimers, Asphalt Compactors and Soil Compactors. The customers say the scope of the product line is part of what makes the showroom so impressive.

The spacious facility, flowing with

natural light, also provides visitors with a hands-on opportunity to learn about the machines indoors—out of the elements and away from the distractions of a jobsite. "It was great watching the customers migrate to the machines that interested them, and then having a chance to climb around and to see and feel the machines," said Dittmer.

- Crucial components and parts, such as rotors and various mill bits, also are on display for close examination.
- Interactive kiosks enable visitors to learn more about the machines. Experts are only a few feet away to answer questions as well.

Of course there is more to the facility than the equipment showroom. Phase one of the construction of the center is now complete.

- The lobby now features a wide variety of Cat branded merchandise and collectibles, as well as large, engaging images of working jobsites.
- A VIP lounge for visitors provides a place for visitors to relax or have a quality cup of espresso.
- Training classrooms are complete and the regular class schedule has begun.
- Key personnel, including engineers, are available nearby should visitor questions arise.

"The Customer Solutions and Learning Center will never be entirely finished," said Lieven Van Broekhoven, Worldwide Sales and Marketing



CUSTOMER SOLUTIONS AND LEARNING CENTER



Manager. "We will always listen to and anticipate our customers' needs. The showroom, too, will continue to evolve and meet customer

expectations. It is a tool for our customers to see and learn about our expertise."

Van Broekhoven and others at Caterpillar enjoy walking through the showroom while visiting customers flock to, and inspect, the equipment.

The showroom provides a rare opportunity to learn much about the machines and their key features up close. The more customers look, the more they like what they see. As proof,

Cardoso points to a new Brazilian customer who recently switched from another manufacturer to Caterpillar.

"Before visiting I used a different paver," the customer said. After a visit to the center, and a thorough evaluation of Cat paving equipment, he changed his mind. "Now I know that the real pavers are Cat pavers," he told Cardoso. ■

Showroom

- 2021 m² (21,755 ft²) of dedicated showroom space
- Three interactive stations
- Can be configured to highlight machines of particular interest to customers
- Outdoor demonstration/training area

Training area

- 446 m² (4806 ft²) of dedicated training lab space
- Four training classrooms
- Access to outdoor area

Also includes ...

- Two dedicated VIP conference rooms
- VIP Lounge
- Cat Paving store, featuring clothing and novelties





**IMPROVE PAVING TECHNIQUE.
IMPROVE MAT QUALITY.
IMPROVE PROFITABILITY.**

**CATERPILLAR OFFERS PAVING
OPERATIONS TRAINING.**

Contract your Cat® Dealer or visit our website for course schedules, detailed course descriptions and online registration. Classes are starting soon. Register today!

<http://www.cat.com/paving-training>

