

AGCO RT gets new engines, transmissions

New 6.6-L **AGCO** engines expand the power range available in the company's RT Series tractors from 100 to 155 hp (75 to 115 kW) with the RT100A, RT120A, RT140A, and RT155A. AGCO model numbers designate PTO horsepower output.

"AGCO engines are designed specifically for off-highway use," said Todd Stucke, General Marketing Manager, AGCO Tractors. "This means we can design for maximum function, strength, and durability, such as using a cast-iron block that would be weight prohibitive in many dual-use engine designs. On AGCO engines, it serves as a load-bearing portion of the tractor, permitting a narrower frame than is possible with other engines. This allows the RT Series a tighter turning radius, which is important turning on row crop headlands or when maneuvering through a feedlot."

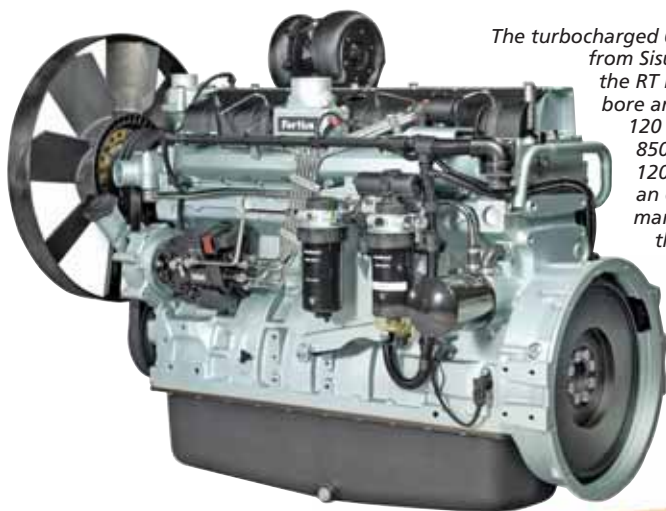
The new six-cylinder engine, built by sister company **SisuDiesel**, is said to run quieter, due in part to its one-piece design, but also due to its lighter connecting rods that produce less vibration. At partial load and in cold weather, the engines maintain low noise levels because of a viscous fan drive that only kicks in under load and as engine temperature increases. AGCO says the variable speed fan ensures optimum engine temperature, reduces fuel consump-

tion, and ensures easier startup, quicker warm-up, and overall improved efficiency. Cold starts are improved, and cold engines run smoother because of pre and post activation of the electric inlet air grid heater.

Charge cooling, high-efficiency injectors, and an improved combustion chamber design contribute to cleaner engines that require less fuel, states the company, adding that the turbocharged Tier II engine produces more power and torque with fewer emissions. Fuel is filtered to 5 micron for cleaner and more complete combustion and longer lasting injection systems, and the filter housing is designed so filters can be changed without leaking fuel onto the ground or the hands.

A major contributor to the engine's efficiency is electronic engine management (EEM), which provides fast response to changing engine loads and allows the operator to set two custom engine speeds. An operator can throttle to engine rpm set speed at the push of a button or adjust speed in increments of 10 rpm. EEM contributes to more power, lower emissions, and improved economy by continuously adjusting amount and timing of fuel injection.

All four new RT Series tractors are available with the PowerMaxx CVT (continuously variable transmission) for maximum power and infinite travel speed selection. All controls are ergonomically placed for easy access. When PowerMaxx CVT RT tractors are also equipped with the optional front suspension, they provide up to 32 mph (50 km/h) transport speed. According to Stucke, there are thousands of PowerMaxx CVTs "in use throughout the world. Owners are finding significant fuel savings as well as reduced fatigue and increased productivity with these transmissions."



The turbocharged 6.6-L Fortius engine from SisuDiesel that powers the RT models features a bore and stroke of 108 x 120 mm (4.25 x 4.7 in), 850 N·m (625 lb-ft) at 1200 to 1500 rpm, and an electronic engine management system that continuously adjusts the amount and timing of fuel injection.

The PowerMaxx CVT (shown in one of AGCO's DT Series tractors) is available in all four new RT tractors and is said to offer significant fuel savings and reduced operator fatigue.



Capture

GREATNESS

Wonderful engineering inspiration is all around us. Like the spider's web with tensile strength so remarkable, if its strands were as thick as a pencil, it could hold a passenger jet.



So if the challenge is finding a cost-effective custom gear solution for a unique and even an unusual application, partner with Fairfield. As the world's largest independent custom gear manufacturer, we offer you fully integrated services, an unrivaled engineering expertise and, above all, an unshakeable belief that anything is possible.

FAIRFIELD
ENGINEERED DRIVE SOLUTIONS

Nothing Is Impossible.

(765) 772-4000 / fairfieldmfg.com



Engineering



Manufacturing & Assembly



Heat Treating



Testing & QA



Service Support

In addition to PowerMaxx CVT transmissions, the RT100A and RT120A models are available with the new Auto-6 transmission with 24F/24R speeds. The Auto-6 offers operators a choice of six power shift ratios that can be shifted under load without clutching within four auto select ranges. Shifting between the four ranges is also clutchless. The left hand control lever on the steering column provides forward and reverse di-



The RT155A is the most powerful model in the AGCO RT Series. AGCO says most RT buyers select the PowerMaxx CVT because of its increased efficiency and infinite speed selection.

rection control and easy selection of the desired powershift ratio. The right hand, console-mounted power control lever lets the operator manually select powershift ratios or one of four gearbox ranges.

AGCO says the Auto-6 is simple to operate, rugged, and dependable, partly due to a rotary-dial controller that provides over-speed protection with manual shifting or "speed matching" powershift selection after a manual range change. When an operator uses the dial to select Road or Field modes, automatic shifts up or down will be in response to both preset engine speed and load. In Field mode, the operator makes range selections manually, while the transmission changes the powershift ratio. In Road mode, powershift ratio and gear range are selected automatically.

The Auto-6 transmission allows the operator to preselect forward and reverse starting gears. The operator also can adjust the shuttle clutch to provide more or less aggressive direction change. Even more gear options at slower speeds are available with the 4:1 creeper option. With six powershift ratios in each range, most field operations can be carried out in a single range. "Those powershift ratios also make it possible to achieve top speed with a given load at a lower rpm than is possible with most alternative transmissions, claims AGCO.

RT140A and RT155A models also can be equipped with the Auto-Quadrashift transmission with PowerControl. Operators have the convenience of a four-speed powershift with the advantages of eight-speed synchromesh economy for a total of 32F/32R speed selections.

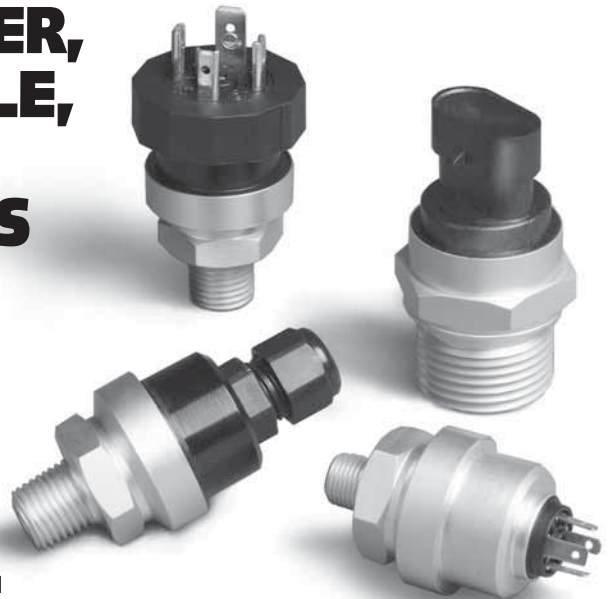
Jean L. Broge

FROM A SOLID-STATE SENSOR TO A COMPLETE TRANSDUCER, WE'LL GIVE YOU STABLE, ACCURATE PRESSURE MEASUREMENT THAT'S PACKAGED THE WAY YOU NEED IT.

AMETEK's state-of-the-art technology provides extremely accurate pressure sensors that are fully compensated for temperature and pressure to give you very stable operation with complete sensor interchangeability. We can meet your OEM needs with sensors, subassemblies, or completely packaged transducers with a variety of pressure ranges and outputs. Digitally compensated transducers are also now available.



AMETEK U.S. Gauge PMT Products
Tel: 888-625-5895 • 215-355-6900
Fax: 215-354-1801
www.ametekusg.com



AMETEK[®]
U.S. GAUGE
PMT PRODUCTS

John Deere upgrades compact excavator

The new 27D compact excavator from **John Deere** maintains the overall design and fuel economy of the company's C-Series, with a few added features for increased productivity.



John Deere claims its new 27D compact excavator provides increased productivity due to reduced cycle times and a long arm option, as well as better operator comfort with updated controls and a redesigned cab.

Some of the improvements include increased operating speeds, 50% more drawbar pull, and automatic shifting between high and low travel speeds. Cycle times have been cut by 18%, allowing operators to dig more cubic yards per hour. A new long arm/counterweight option adds approximately 12 in (305 mm) of dig depth and reach. Powered by a **Yanmar** 3TNV88 engine, the 27D engine displacement has increased from 1.496 L to 1.642 L. This engine also features a higher torque curve.

The cab is 5 in (127 mm) wider and features repositioned hand and foot control levers for easier operation and more room. Foot room also has increased due to relocation of the speed selector switch and new foldable travel pedals. The repositioned monitor provides better visibility, as well as two trip meters that can be set to remind operators when service is required. The cab door now features a bi-fold design that allows

Key Specifications

	27D	27D with long arm/counterweight option
Rated power, SAE net, hp (kW)	26 (19)	26 (19)
Operating mass, lb (kg)	6393 (2900)	6839 (3100)
Max digging reach, in (mm)	184 (4674)	194 (4928)
Max digging depth, in (mm)	103 (2616)	115 (2921)
Max auxiliary flow, gal/min (L/min)	13.9 (53)	13.9 (53)

Comprehensive.



Hardware-in-the-Loop Simulation with dSPACE Simulator – Powered by Automotive Simulation Models.

- Enormous computing power for real-time simulation
- Fast, determined I/O access
- Systematic, reproducible electrical failure simulation
- **NEW:** Completely open Simulink® models
- **NEW:** Designed for diesel engine, gasoline engine, and vehicle dynamics simulation
- **NEW:** Easy, graphical parameterization of vehicle parameters, roads, and driving maneuvers

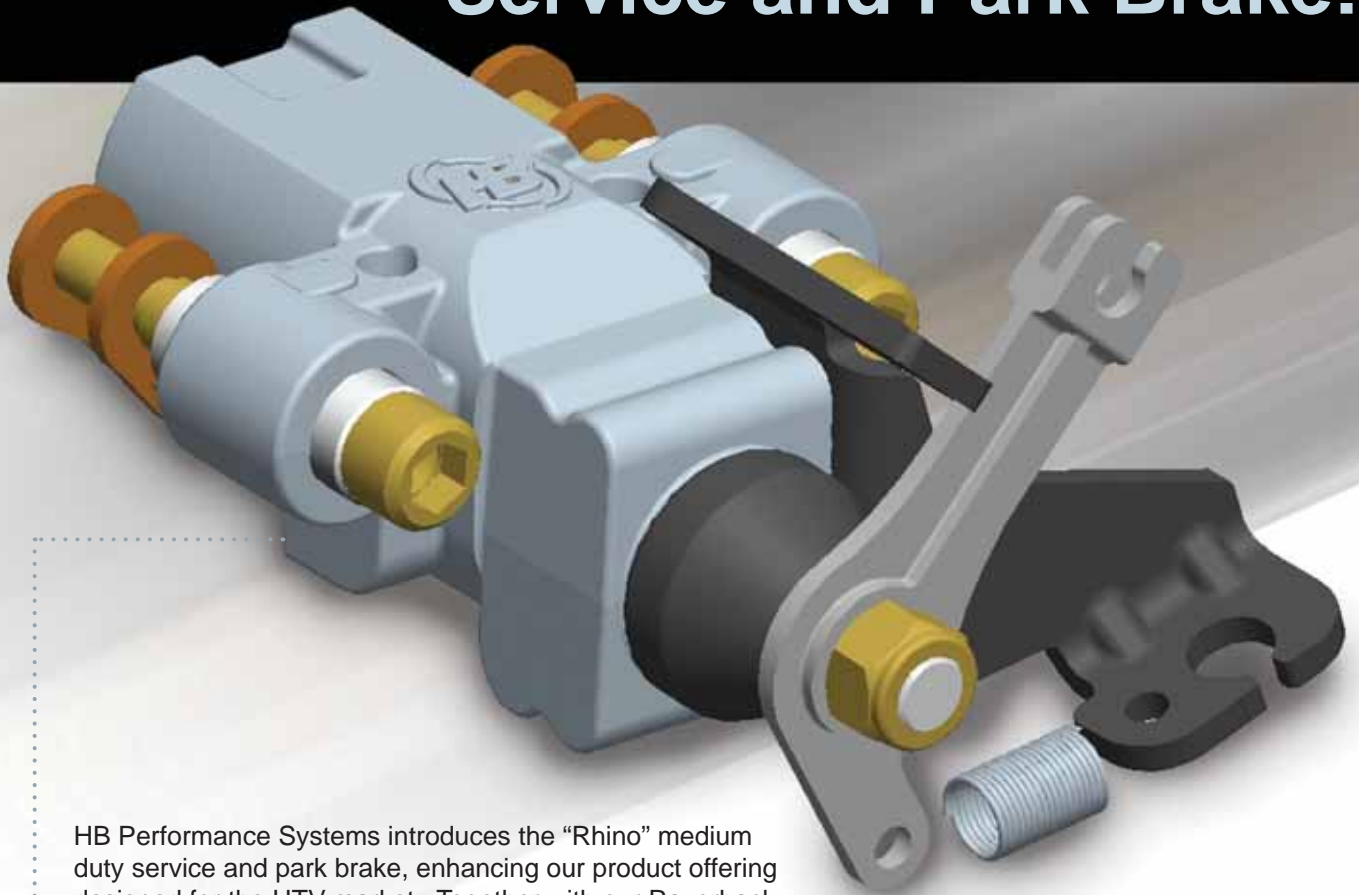
The dSPACE Simulator and new Automotive Simulation Models deliver a complete, perfectly integrated real-time development and test system for electronic control units (ECUs).

Use the dSPACE Simulator to access Simulink models down to the block level and create a virtual vehicle.

This powerful, flexible solution offers you optimum technical integration into projects and speeds up your development processes.

dSPACE
www.dspaceinc.com

New from HB Performance Systems – the “Rhino” Medium Duty Service and Park Brake:



HB Performance Systems introduces the “Rhino” medium duty service and park brake, enhancing our product offering designed for the UTV market. Together with our Razorback hydraulic caliper and Sidewinder Tandem Master Cylinder, the Rhino makes a complete brake system for today’s high performance Utility Vehicles.

The Rhino is a cost effective, lightweight, integrated service and park brake designed toward vehicles with 2 or 4 wheel braking systems. This low profile caliper is small enough to fit in today’s tighter rim configurations.

Features of the Rhino include:

- capable of 1,840 lbs of service clamp force and 2,460 lbs of mechanical clamp force
- compact, one piece cast aluminum housing, ideal for mounting inside the wheel
- square seal piston retraction for constant running clearance
- removable pad pin design for mounting ease and flexibility
- integral park brake manually adjusts for pad wear
- quick change pads with long life friction material
- integral cable reaction bracket





Circle 251

Right in design. With the finest brakes and application support in the business. HB Performance Systems. Total integration for maximum safety, reliability and stopping power. Because the deeper in the woods you go, the deeper the commitment has to be. Contact us. It's never too early. 262-242-4300 or sales@hbpsi.com or at www.hbpsi.com.



the operator to lock it back against the cab in the open position. Factory-installed air conditioning is standard when the optional ROPS (rollover protective structure) cab is ordered.

Deere says uptime is improved via several design changes, including an updated undercarriage that sheds dirt easily and reduces the time it takes to clean the machine. Improved rubber tracks are harder and have a reshaped core to resist cracking. Also, the drive sprocket and track idler have increased in diameter to provide additional durability and help reduce the chance of “throwing” a track.

The boom cylinder guard has reinforcement ribs that improve strength and reduce the likelihood of cylinder damage. Easily replaced front hoses in the swing post transition area can

quickly be replaced without tilting the cab or routing the hoses to the control valve.

An operator station that tilts forward 50° allows for easy access to the control valve and front side engine components. All service checks can be performed by opening just two covers. Extended service intervals include a 500-h interval for engine oil change and greasing, and 2000-h interval for hydraulic oil change. A variety of Worksite Pro buckets—including all of the tools that worked with the 27C ZTS—work with the 27D. Compatible breakers, augers, and thumbs also are available. Buckets for the 27D are interchangeable with the quick-coupler option on the 110TLB and 35D.

Jean L. Broge

Case takes excavators up and down

Fitting between the current CX460 and CX800 models from **Case Construction Equipment**, the new 70-t (77-ton) CX700 excavator has an operating mass of 153,400 lb (69,500 kg). It is powered by a 425-net-hp (317-kW) Tier 3-certified **Isuzu** engine and digs to 32 ft (9.75 m) while reaching to 47 ft (14.3 m) at ground line. The CX700's frame is based on the larger CX800.

“This new model provides four work modes, auto power boost, and a climate-controlled, iso-mounted cab—while pro-

viding several new features that enhance performance and make the machine easier to maintain,” said Dave Wolf, Marketing Manager, Case Construction Equipment.

New on the CX700 is a switch that allows the operator to give priority to either the boom or the swing functions. “By flipping the boom priority switch, the operator channels flow and speed to the boom, which is a great feature for contractors who are lifting materials out of a deep trench or into a high truck,” Wolf said.

Case has also introduced Tier 3 technologies to its CX330 excavator, increasing power and improving fuel economy, while adding features that enhance operator comfort and simplify maintenance. The Isuzu engine that powers the CX330 excavator is fully electronic and uses a high-pressure common-rail system that provides a 5% increase in power and 8 to 10% better fuel economy.

“The increased power translates to more material moved per hour, reduced operating costs, and a more efficient, cleaner burn,” said Wolf.

According to Case, many features standard on the new CX700 are upgrades for the CX330 that will be applied to the other larger Case excavator models moving forward. Key upgrades include improvements to ease of maintenance and serviceability. Both the CX330 and CX700 feature EMS (easy maintenance system) lubricated, impregnated bushings throughout the boom and arm for extended lube intervals of up to six months or 1000 h. In addition, the engine oil filters are now vertically mounted in the pump-house access area to allow for easier access and service.

The addition of a “green” plug—a modified oil pan drain plug with a check valve—further facilitates oil changes. “Using an easily accessed adapter that comes with the machine, the operator or service technician merely twists the adapter onto the plug, and oil automatically goes through the check valve and through the hose, virtually eliminating the likelihood of spills,” said Wolf.

Finer fuel filtration on both the CX330 and CX700 to 4 micron contributes to increased uptime and improved fuel performance.

An upgraded cooling system features a design that reduces the stacking of coolers for better cooling efficiency and improves access to ease debris removal. In addition, the CX700 features a hydraulically driven, thermostat-controlled reversible fan for improved engine cooling and easy cleanout of materials.

Jean L. Broge



The CX700 from Case Construction Equipment has retractable side frames and an optional counterweight removal device for easier transport. It represents a new size offering for Case, fitting between the CX460 and CX800 models.



One of the enhancements to the now Tier 3-certified CX330 included increasing the strength of the front idlers by beefing up the thickness and design of the center hub and improving the track seal design for increased life.

New wheel loader is all Komatsu

Komatsu America's new WA500-6 wheel loader was designed for quarry, sand, gravel, and industrial applications. It offers 332 net hp (250 kW) and has an operating weight between 71,585 and 74,010 lb (32,470 and 33,570 kg). All major components including the engine, torque converter, transmission, hydraulic units, and electric parts were engineered by Komatsu.

The WA500-6 is equipped with Komtrax technology, which sends the machine operating information to a secure Web site using wireless technology. Hour meter, location, cautions, maintenance alerts, etc., are relayed to the Web application for analysis. Komatsu says the Komtrax fleet-monitoring system increases machine availability, reduces the risk of machine theft, allows for remote diagnosis by the distributor, and provides a wealth of other information to drive business efficiency and productivity.

The new WA500-6 gets its power from a Komatsu SAA6D140E-5 engine coupled with a new, large-capacity torque converter and variable piston pumps. The engine complies with the Tier 3 emissions. The large capacity torque converter improves the machine's performance when loading trucks and climbing grades. The variable piston pumps combined with CLSS (Closed-Center Load Sensing System) delivers only the required amount of hydraulic flow necessary to the work equipment. By reducing the wasted flow of hydraulic oil, the amount of power necessary to move the pumps is reduced.



The new cab of the WA500-6 is mounted with Komatsu's unique viscous mounts to keep noise at a minimum and provide a low-vibration operating environment.

The rim pull is increased for better bucket penetration and reduced cycle times, all leading to higher productivity.

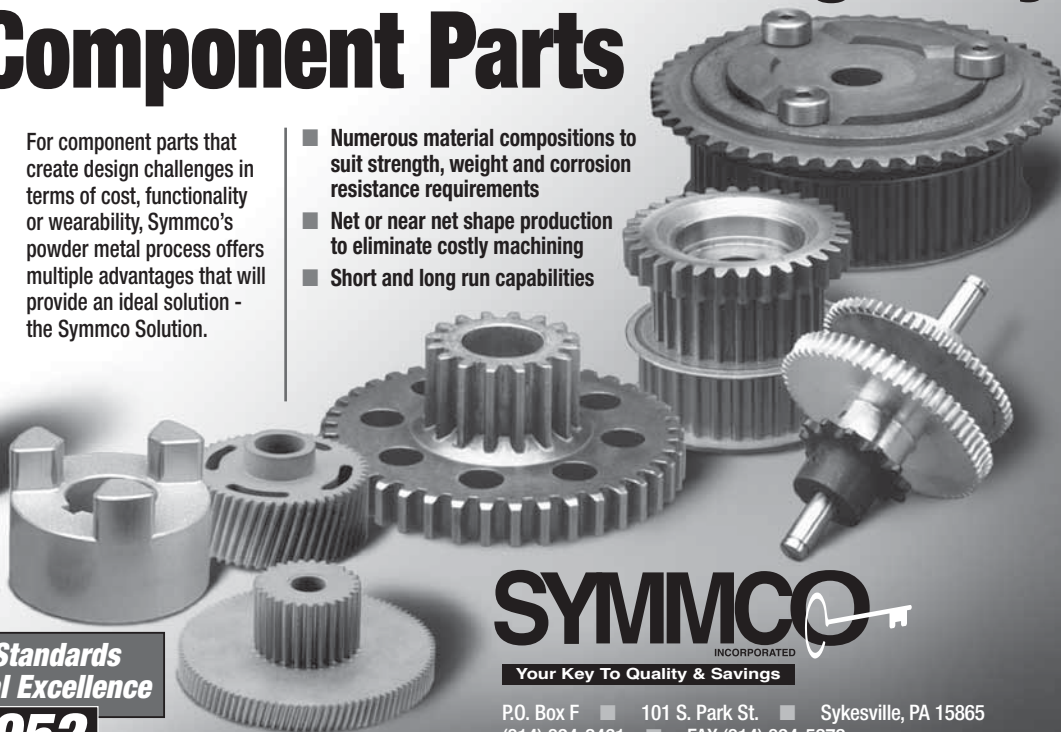
With two selectable operating modes that are easily adjustable, the engine adapts to different working conditions. The E mode provides maximum fuel efficiency for general loading

Design Solutions For Off-Highway Component Parts



For component parts that create design challenges in terms of cost, functionality or wearability, Symmco's powder metal process offers multiple advantages that will provide an ideal solution - the Symmco Solution.

- Numerous material compositions to suit strength, weight and corrosion resistance requirements
- Net or near net shape production to eliminate costly machining
- Short and long run capabilities



Exceeding The Standards of Powder Metal Excellence

Since 1952

SYMMCO
INCORPORATED

Your Key To Quality & Savings

P.O. Box F ■ 101 S. Park St. ■ Sykesville, PA 15865
(814) 894-2461 ■ FAX (814) 894-5272
www.symmco.com ■ E-mail: sales@symmco.com

and the P mode has a maximum power output for hard digging operation and hill climbing. In the low-speed range, the low-noise, high-torque engine and the large-capacity torque converter reduces fuel consumption for maximum efficiency. For load and carry or hill-climb operations, the new torque converter with optional lock-up transmission provides increased production efficiency, reduced cycle times, and optimum fuel savings.

The new wheel loader has an increased general purpose bucket capacity of 7.4 yd³ (5.7 m³) and can now load 32-ton (29-t) trucks. There is also an optional 6.8-yd³ (5.2-m³) bucket for excavating or an 8.2-yd³ (6.7-m³) bucket for light materials. A wider tread and longer wheelbase improves the machine's stability and enables operators to efficiently maneuver in tight spots. The cab has a built-in ROPS/FOPS (rollover protective structure/falling-objects protective structure) and its layout has been improved for easy access to levers and with larger arm-rests.

EPC (Electronic Pilot Control) levers are equipped in the cab, which Komatsu claims allows an operator to work all day without fatigue and to perform functions such as adjusting the bucket positions and digging angles with minimal stroke. The air conditioner has been relocated to the front of the cab for more room behind the seat and on the left side, providing more room for seat travel.

The automatic transmission with ECMV (Electronically Controlled Modulation Valve) automatically selects the proper gear speed based on conditions such as travel and engine speed, and includes two switches that make operating the machine easier. With the touch of a finger, the kick-down switch automatically downshifts from second to first when beginning the digging cycle; in reverse, it automatically upshifts from first to second. Conversely, the hold switch keeps the transmission fixed to either the third or fourth gear speed when auto shift is selected.

Jean L. Broge

Compact telescopic handlers from Gehl

Gehl says its five new CT-Series telescopic handlers—the CT5-16, CT5-16 Turbo, CT6-18 Low Profile, CT6-18 Turbo, and CT6-23 Turbo—can be used in just about any construction, agricultural, or landscape application. The CT-Series features maximum capacities from 5000 to 7000 lb (2268 to 3175 kg), maximum lift heights from 16.1 to 22.6 ft (4.9 to 6.9 m), and

both turbocharged and naturally aspirated Tier 2 **Perkins** engines that range from 58 to 101 hp (43 to 75 kW).

The CT5-16 and CT5-16 Turbo have lift capacities of 5000 lb (2268 kg), allowing them to lift a full pallet of brick or block more than one-and-a-half stories. Both models have an overall height of less than 7 ft (2.13 m), making them suitable in



GOLDSTANDARD

Take control of your critical investments with Flo-tech Activa™ Sensor Arrays.

- Simultaneously measure flow, pressure, and temperature
- Intelligent Frequency Converter (IFC) standard on all models
- User-friendly electronic integration

Let us prove how the Activa Sensor Array can improve productivity, reduce maintenance costs and protect your critical investments through reliable flow metering from Flo-tech.



Call or visit us online for details. 800-433-5263 • hedland.com/sae606



A tri-function joystick is standard on Gehl's CT7-23 and CT6-18 Turbo telescopic handlers, while the CT5s and the CT6-18 Low Profile offer a joystick and dual levers. Auxiliary hydraulics are standard on all models.



buildings with low entryways, and both come standard with a hydrostatic transmission with a power shuttle.

For applications that require extra lift capacity, Gehl offers the CT6-18 Low Profile and CT6-18 Turbo, both of which can lift 6000 lb (2721 kg) to full lift height. Both machines use a lightweight 7.8 ft (2.34 m) wide, 2.5-yd³ (19-m³) bucket. The low-profile version of the handler has a cab less than 7 ft (2.13 m), allowing it to work in such places as garages and small poultry barns. The more powerful CT6-18 Turbo features a direct-injection 101-hp (75-kW) engine and a tri-function joystick with fingertip controls. Designed more specifically for agricultural applications, it is standard with larger tires and a quick-attach system. The hydraulic quick-attach system features a hydraulic circuit for attaching buckets and forks without the operator having to leave the cab. A hydraulic locking feature is included to avoid accidental actuation of the auxiliary circuit.

Also designed for agricultural applications and using the same 1104-C44T Perkins engine as the CT6-18 Turbo, the CT7-23 has a load-sensing hydraulic system that features a variable-displacement pump. The engine provides 305 lb-ft (412 N·m) at 1400 rpm and is side-mounted for ease of maintenance. Its transmission is fully synchronized, with a torque converter and power shuttle that requires no manual clutching. Maximum transport speed of the CT7-23 is 21 mph (34 km/h) and it comes standard with air conditioning, which is optional on all the other models except the CT5-16.

All the turbocharged models feature a vibration-insulated cab that includes a fully adjustable seat with suspension; a split-level door; rear window that opens; and front-, rear-, and roof-mounted wipers.

Jean L. Broge

At Kavlico Our Sensors are the Solution !

For on & off-highway vehicles, when it comes to aggressive, high vibration, broad temperature range environments, Kavlico OEM sensors and transducers are unequaled. Our high accuracy, field-proven designs offer reliable, cost-effective solutions for engine mounted, underhood, and emissions applications.

Our sensors operate in hostile media environments, where temperatures range from -50 °C to +150 °C with an accuracy spec of better than 1%. Pressure ranges are available from ± 1" H₂O to 23,000 psi gage, absolute, differential, and combined pressure and temperature.

- EGR Differential Pressure
- Barometric/Manifold (BAP/MAP)
- Engine Oil Pressure
- Common Rail Fuel pressure
- Exhaust Back-Pressure
- Particulate Trap Differential
- Crankcase Pressure
- Compressed Air Pressure
- Tilt
- Coolant Pressure
- Turbo Boost
- Oil Level/Quality

Circle 255

14501 Princeton Avenue • Moorpark, CA 93021

Tel: (805) 523-2000 Fax: (805) 523-7125 • Web: www.kavlico.com • E-Mail: sales@kavlico.com

My Kingdom For a Hatz!



How do you determine the value of dependable horsepower?

**worldwide
emissions
compliant**

For if your engines die in battle, your equipment empire could be in peril. But with Hatz, you don't have to worry. For more than 100 years, the master tradesmen at Hatz have been crafting some of the finest small diesel

engines (2 to 74 hp) ever to come out of Germany's famous Bavarian motor region. Engineered and built with true world-class technology, Hatz little knights in shining armor far outlast gasoline and other diesel engines. Is it any wonder Hatz rules when it comes to long-lasting quality?



Circle 256

Visit our web site for product and distributor information www.hatzusa.com

Hatz Diesel of America, Inc., P.O. Box 258, Waukesha, WI 53187-0258 • Tel: (262) 544-0254 • Fax: (262) 544-6120 • e-mail: sales@hatzusa.com

Lightest Liquid-Cooled Engine You'll Ever Encounter!



You don't need rocket scientists to lighten the load on your equipment.

worldwide
emissions
compliant

Hatz W35 Series Liquid-Cooled Diesels (7.1 to 42.2 HP) can help you gravitate to your desired weight in no time. With a new space-age design and cast aluminum block, our 4-cylinder models are up to 150%

lighter than other liquid-cooled models. And our 2-cylinder models are up to 78% lighter! They're also whisper quiet and easy to service. So if you want your starships to soar towards weightlessness, probe Hatz web site for our W35 Series Liquid-Cooled Engines. They're out of this world!



Visit our web site for product and distributor information www.hatzusa.com

Circle 257

Hatz Diesel of America, Inc., P.O. Box 258, Waukesha, WI 53187-0258 • Tel: (262) 544-0254 • Fax: (262) 544-6120 • e-mail: sales@hatzusa.com

Ammann-Yanmar extends mini excavator range

Engineers from Japan and France collaborated on the development of the new Semi-ViO range of mini excavators previewed at Intermat in April by **Ammann-Yanmar**, a company based in Saint-Dizier, France, and formed in 1989 as a joint venture between the Switzerland-based **Ammann** and Japan-based **Yanmar**. The new range—the SV15, SV17, and SV17 Ex—will replace the company's conventional Series B machines (B15-3, B15-3 Ex, and B18 Ex) in Europe this year.

Ammann-Yanmar developed the SV15 and SV17 to fill out



The SV17 has a dipping depth of 2400 mm (95 in), two traveling speeds, and a variable hydraulic pump. A new load-sensing hydraulic system allows for simultaneous operation of all machine functions.

the range of the Semi-ViO series, with its 600-kg (1325-lb) SV05 and 1.1-t (1.2-ton) SV08-1 ultra-minis and its 9.3-t (10-ton) SV100 midi excavator. The company also offers a range of zero-tail-swing ViO machines.

The SV15 and SV17 are characterized by a reduced rear swing radius of 980 mm (39 in), which the company claims is the lowest figure of any conventional machine on the market. That swing radius is 220 mm (9 in) less than the B15-3 generation of machines, allowing the new SVs to operate in especially confined areas. The overall width of the machine is also 980 mm (39 in), allowing it to pass through a 1-m (3.3-ft) doorway.

Yanmar's next-generation TNV engines, which it says consume less fuel and are less noisy than the previous generation, will power the line, which will also feature a new hydraulic system. The new load-sensing hydraulic system allows for the simultaneous, precise operation of all machine functions, thereby increasing security and productivity, especially for precision work such as banking and leveling.

The SV15 is the smallest of the three models that make up the new range. It has an operating mass of 1480 kg (3260 lb) with a canopy or 1580 kg (3485 lb) with a cab. This basic machine is easy to transport, with a reduced transport mass of only 1390 or 1490 kg (3065 or 3285 lb) with canopy or cab, respectively. Its arm allows for a digging depth of 2000 mm (80 in). The machine is suitable for rental fleets, and for both park-land and construction work.

With an operating mass of 1600 kg (3530 lb) with a canopy

or 1700 kg (3750 lb) with a cab, the SV17 is 120 kg (265 lb) heavier than the SV15, comes equipped with a long dipper arm for an increased 2400-mm (95-in) digging depth, a second traveling speed, and a variable hydraulic pump. It was designed for harder, longer duration work. The SV17 Ex is the same as the SV17, but with a variable undercarriage, 750 to 1090 mm (30 to 43 in). The widened frame allows for even greater stability on steep slopes.

Designers paid special attention to the ergonomics of the cabin, according to the company, providing "well-positioned joysticks, adjustable arm-rests, a comfortable, adjustable seat, and numerous storage spaces." The travel levers are equipped with pedals, allowing the operator to combine driving with the machine's various work functions.

Both the cab and canopy options of the machines meet ROPS (rollover protective structure), FOPS 1 (falling-objects protective structure), and TOPS (tip-over protective structure). The compact machines also allow users to have immediate access to all daily maintenance inspections for components such as the air filter, oil filter, fuel filter, expansion tank for the cooling system, etc.

Jean L. Broge

Reliable. Tough.

Main Power Relay

- Only 1 Relay Switching Point
- Built-in Transient Voltage Suppression (TVS)
- Low Current Capability

Quite Simply, the Best Defense for Your Electrical System.

Trombetta +
MOTION TECHNOLOGIES
262-251-5454 www.trombetta.com

BOMAG shows off stabilizer/recycler

BOMAG highlighted at Intermat in April its new MPH 125 designed for any soil stabilization job by incorporating lime, fly ash, or cement, and for use as a recycler for cold recycling of damaged road structures. With its water-cooled, eight-cylinder **Deutz** diesel, the MPH 125 occupies an output class above the MPH 122, with hydrostatic rotor drive motors on the MPH 125 producing significantly higher torque. The 440-kW (590-hp) engine is equipped with an electronic engine management system that optimizes output so that the machine can be operated continuously at maximum performance without overloading.



The new MPH 125 from BOMAG is designed for multi-purpose utilization in soil treatment and recycling and features a water-cooled, eight-cylinder Deutz engine.



The cab of the MPH 125 features a sliding, rotating workstation; expanded leg room; and improved layout of displays and controls.

The machine can be used to a maximum working depth of 550 mm (22 in) with a working width of 2330 mm (92 in). An overload sensor also protects against severe damage to the rotor from obstacles hidden below ground.

The hydrostatic travel drive has been upgraded "for maximum efficiency in converting force into action," says BOMAG. Optimized axle load distribution combined with high drive torque to the wheels, friction-type differential integrated into the rear axle, and electronic anti-slip control produces full forward drive on rough ground and offers plenty of power needed to push additive supply tankers.

For the best mix, the rotor speed can be adjusted on the run, under load, to suit the ground conditions. The direct-drive hydrostatic motors are integrated into the rotor, which contributes to low wear and maintenance costs since all mechanical links have been eliminated.

MPH 125 rotors feature exchangeable edge segments because wear from milling operations is highest at the end of the rotor. The segments can be changed easily by one mechanic without dismantling the rotor or hood. The milling cutter can also be replaced quickly and simply.

A specially designed rotor hood enables a lateral operation for road recycling. If combined with optional recycler tires, the MPH 125 can mill on both sides close up to curbs or pre-milled edges.

A new cab design for the MPH 125 that features a height-adjustable operator's platform allows the cab to be lowered, and thus contributes to fast site-to-site transport. The new design negates the need for special permits or low-load trailers for HGV transportation. The new cab concept also offers an improved view of the working area and a sliding, rotating workstation. The frame of the operator's cab includes an integrated ROPS (rollover protective structure) and protection against falling objects.

For road recycling or soil stabilization, different additive systems will be available for bitumen or water. These apply precise additive volumes into the mixing chamber during the milling process. Systems are available for water, bitumen emulsion, or foamed bitumen and are automatically speed-related and managed via a screen with documentation function.

Jean L. Broge



Connect Transportation Systems



ModICE™

Need a sealed electronics package?

That's a Cinch!

With our new Modular Integrated Connector Enclosures (ModICE™), you've got a rugged enclosure system, heat sink and ferrite-filter options, plus simple assembly. Cinch's ModICE offers up to 60 I/O and meets IP-65, 66, 67 and 69 standards. Heat sinking is integrated into the system. The header accommodates inductive filtering. You mount the header to your board, process the board, slide it into the enclosure, and snap it shut. What could be easier? Call Cinch, today, and meet your connector-enclosure needs, tomorrow.

www.modice.info

Phone: (630) 705-6031

E-mail: transportation@cinch.com

Powertrain and Propulsion Technological Innovation – Ready to Work for You

Whether it's a single paper or an intranet-base corporate library, SAE can provide you with the technical information you require, in the format that best meets your needs. Building on over a century of expert technical knowledge, research and experience, technical information from SAE can help you:

- Reduce time from concept to finished product
- Improve manufacturing processes
- Enhance product and process quality
- Facilitate innovative research and development



Technical Papers – Choose the Format that Meets Your Need

Special Publications (SPs)

Special Publications (SPs) are collections of technology – related SAE Technical Papers from one or more technical sessions at a particular SAE event. SPs can save you 60% or more when compared to the collective purchase price of the individual papers in the collection.

Individual Papers

SAE Technical Papers are available in print or as a PDF download
\$12.00 List and \$9.60 SAE Member Price.

Powertrain and Propulsion-Related SPs from SAE 2006 World Congress include:

Transmission and Driveline 2006

ISBN: 0-7680-1736-X, Approx 44 papers
ISBN-13: 978-0-7680-1736-6
**\$159.95 List/
\$127.96 SAE Member Price***
Product Code: SP-2001

In-Cylinder Diesel Particulate and NOx Control 2006

ISBN: 0-7680-1737-8, Approx 17 papers
ISBN-13: 978-0-7680-1737-3
**\$99.95 List/
\$79.96 SAE Member Price***
Product Code: SP-2002

Electronic Engine Controls 2006

ISBN: 0-7680-1738-6, Approx 44 papers
ISBN-13: 978-0-7680-1738-0
**\$149.95 List/
\$119.96 SAE Member Price***
Product Code: SP-2003

New SI Engine and Component Design 2006

ISBN: 0-7680-1739-4, Approx 25 papers
ISBN-13: 978-0-7680-1739-7
**\$119.95 List/
\$95.96 SAE Member Price***
Product Code: SP-2004

Homogeneous Charge Compression Ignition (HCCI) Combustion 2006

ISBN: 0-7680-1740-8, Approx 49 papers
ISBN-13: 978-0-7680-1740-3
**\$149.95 List/
\$119.96 SAE Member Price***
Product Code: SP-2005

Applications of Fuel Cells in Vehicles 2006

ISBN: 0-7680-1741-6, Approx 11 papers
ISBN-13: 978-0-7680-1741-0
**\$59.95 List/
\$47.96 SAE Member Price**
Product Code: SP-2006

Variable Valve Actuation 2006

ISBN: 0-7680-1742-4, 7 papers
ISBN-13: 978-0-7680-1742-7
**\$49.95 List/
\$39.96 SAE Member Price**
Product Code: SP-2007

Advanced Hybrid Vehicle Powertrains 2006

ISBN: 0-7680-1743-2, Approx 27 papers
ISBN-13: 978-0-7680-1743-4
**\$119.95 List/
\$95.96 SAE Member Price***
Product Code: SP-2008

Hydrogen IC Engines

ISBN: 0-7680-1744-0, 8 papers
ISBN-13: 978-0-7680-1744-1
**\$49.95 List/
\$39.96 SAE Member Price**
Product Code: SP-2009

Diesel Fuel Injection and Sprays 2006

ISBN 0-7680-1745-9, Approx 25 papers
ISBN-13: 978-0-7680-1745-8
**\$119.95 List/
\$95.96 SAE Member Price***
Product Code: SP-2010

Multi-Dimensional Engine Modeling 2006

ISBN: 0-7680-1746-7, 11 papers
ISBN-13: 978-0-7680-1746-5
**\$59.95 List/
\$47.96 SAE Member Price**
Product Code: SP-2011

Compression Ignition Combustion Process 2006

ISBN: 0-7680-1747-5, Approx 15 papers
ISBN-13: 978-0-7680-1747-2
**\$79.95 List/
\$63.96 SAE Member Price***
Product Code: SP-2012

CI & SI Power Cylinder Systems and Power Boost Technology 2006

ISBN: 0-7680-1748-3, Approx 14 papers
ISBN-13: 978-0-7680-1748-9
**\$79.95 List/
\$63.96 SAE Member Price***
Product Code: SP-2013

New Diesel Engines and Components and CI Engine Performance for Use with Alternative Fuels

ISBN: 0-7680-1749-1, Approx 17 papers
ISBN-13: 978-0-7680-1749-6
**\$89.95 List/
\$71.96 SAE Member Price***
Product Code: SP-2014

Combustion and Flow Diagnostics and Fundamental Advances in Thermal Fluid Sciences 2006

ISBN: 0-7680-1750-5, Approx 19 papers
ISBN-13: 978-0-7680-1750-2
**\$89.95 List/
\$71.96 SAE Member Price***
Product Code: SP-2015

SI Combustion and Direct Injection SI Engine Technology

ISBN: 0-7680-1751-3, Approx 31 papers
ISBN-13: 978-0-7680-1751-9
**\$129.95 List/
\$103.96 SAE Member Price***
Product Code: SP-2016

Military Vehicles

ISBN: 0-7680-1775-0, Approx 37 papers
ISBN-13: 978-0-7680-1775-5
**\$139.95 List/
\$111.96 SAE Member Price***
Product Code: SP-2040

* Prices and paper counts subject to change

SAE International[™]

NO BELLS

NO WHISTLES

JUST PURE POWER

When you design Wescon controls, cables or levers into your equipment, you can be assured that power will be delivered each time, every time. It's this kind of dependable performance that makes and keeps customers for you. Let us be a part of your success. Call us.

***Delivered
Where & When
You Want it***



WESCON

**1-800-835-0160 Sales Ext. #1
P.O. Box 7710
Wichita, KS 67277**

**PH. 316-942-7266
FAX 316-942-5114**

www.wesconproducts.com

**Wescon is certified in the ISO 9001
Quality Management System.**