

KOHLER engines **IN ACTION**

WINTER 2001 VOL. 13, NO. 2

Buffalo Turbine overpowers the market

In today's markets saturated with me-too products, it pays to be different. But what sets one product apart from another? For **Buffalo Turbine** of Gowanda, New York, product design is everything, and an innovative, Kohler-powered take on a common product — a leaf and debris blower — is making a strong push in the marketplace. As the company name would suggest, the Buffalo Turbine version is not

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your ordinary debris blower: it generates enough power to easily clear golf course fairways of leaves, pine needles, even the plugs of soil left behind by aerators.

"When I tell people that it's turbine powered," says Paul Syracuse, General Manager, Buffalo Turbine, "I get a lot of comments about holding onto your hat and covering your ears because 'this guy is putting a jet engine on a blower!' But that's a misconception. Sure, it's more powerful than a fan or impeller-style blower, but it's a single-stage turbine — not a multi-stage jet engine — and it runs real quiet compared to any blower in its class."

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Buffalo Turbine's innovative Model KB, a quiet turbine-based debris blower, is powered by a KOHLER Command® 20hp engine.

"Our next shipment of engines from Kohler will be a special 23hp spec designed to add power and cut our production time. That kind of interest in our company is easy to get used to."

— PAUL SYRACUSE, BUFFALO TURBINE

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The new Kohler booth at EXPO featured a more open and inviting design.



EXPO 2001: An engine odyssey

Each year, the International Lawn, Garden and Power Equipment EXPO serves as the launch pad for Kohler Engines' new products. This year's EXPO — held in July in Louisville, Kentucky — once again confirmed Kohler as the industry leader in engine design and technology. And with new releases planned later this year, the show provided a glimpse of exciting new developments that lie ahead.

"This has been a pretty big year for us," says Cam Litt, Product Manager for Kohler. "We introduced a lot of new products at EXPO 2001, and even more at our fall shows."

As with past EXPOs, the OEM luncheon and the traditional brat fry were well attended. Visitors gave Kohler high marks for a new booth featuring a more open and inviting design, and for the demonstrations of the new Electronic Diagnostic/Troubleshooting System for EFI engines (see sidebar on page 3). Taking center stage as always, were six new engine introductions that extended four existing engine lines.



NEW PRODUCTS

KOHLER Aegis® 22 and 25

After launching its vertical-shaft, liquid-cooled KOHLER Aegis engines at the 1999 EXPO and adding horizontal-shaft counterparts last year, Kohler unveiled two new horizontal-shaft models rated at 22hp and 25hp. With these extensions, the KOHLER Aegis line provides OEMs and end users a full range of four-stroke, twin-cylinder engines from 20hp to 25hp.



"There's a growing demand in the marketplace for liquid-cooled products," explains Litt. "By continuing to expand our liquid-

cooled line, we're better complementing our Command air-cooled line. And because the footprint for the KOHLER Aegis is interchangeable with our Command horizontal twins, OEMs have even more options to fit their applications and customer demand."

All quiet-running Aegis engines offer peak power and torque, fuel efficiency, long engine life, and hassle-free maintenance. The advanced liquid cooling system employs an integrated, automotive-style radiator that keeps oil and cylinder head temperatures low and running temperatures consistent. Both reliability and engine life are enhanced.

Production for the KOHLER Aegis 22 and 25 begins fall 2001.

A demonstration of the new Electronic Diagnostic/Troubleshooting System for EFI engines (top), and the traditional brat fry (bottom).

KOHLER Command PRO® 27

“The horsepower race is on, especially in the commercial mowing market,” says Litt. “Customers want to be able to save money by dropping a more powerful engine into the existing frame without having to make it fit or change the application. The new Command PRO 27 engine is the same footprint as the 17hp to 25hp models, so — like the KOHLER Aegis — we’re offering more power out of the same package size.”



The new Command PRO 27 — available in both horizontal- and vertical-shaft versions — expands the twin-cylinder line of four-stroke, air-cooled KOHLER engines, a popular choice among the commercial mowing, lawn tractor, industrial, and construction markets.

Like other single- and twin-cylinder Command PRO engines, the new 27hp models combine the superior design of the original Command series engine with high-performance spark plugs, larger capacity oil and fuel filters, and larger capacity, dual-element air cleaners. Reliability, performance, engine life, and fuel efficiency are boosted substantially.

KOHLER Hydro 13

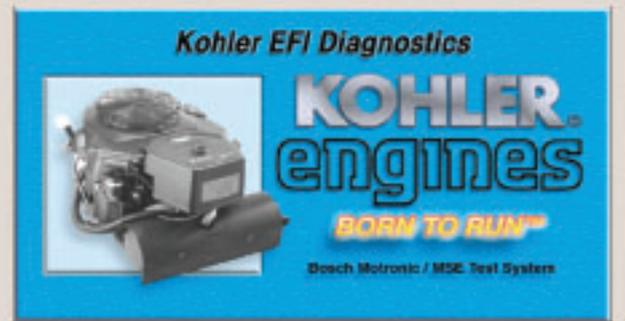
Kohler also rolled out the KOHLER Hydro 13, an overhead valve, single-cylinder engine designed primarily for pressure washers. “This horizontal-shaft engine is ideal for blasting away dirt, grime and oil,” says Paul Blum, Product Manager – Kohler Engines. “With its outstanding torque and power, it’s also an excellent choice for light to medium equipment such as pumps, gensets and construction and rental equipment.”



The Hydro 13 features a superior, load-sensing governor that provides ample and continuous power, a superb combustion chamber design for fuel efficiency, and a fully sealed engine to ensure reliability and prolong life.

KOHLER Command® 492

Kohler also extended the Command line of single-cylinder, vertical-shaft engines with the CV492 18hp engine. Complementing the Command 16hp (CV460) and 17hp (CV490) engines introduced at last year’s EXPO, the 492 offers all the great features of the Command line, but increases horsepower by improving the design of the combustion chamber, camshaft, and intake and exhaust porting. A greater displacement and a longer stroke offer a distinct power and torque advantage across all speed ranges when operating lawn and garden equipment. ■



New diagnostic software for EFI engines

A highlight of EXPO 2001 was the introduction of the new **Electronic Diagnostic/Troubleshooting System** for KOHLER Command Electronic Fuel Injected models CH26 and CV26. This timesaving system, available on CD, allows users to connect engines directly to their laptops and quickly assess electronic and fuel systems.

“Demos of the system were extremely well received,” says Dave Worden, Training Development Specialist – Kohler Engines. “The system measures voltage and critical engine components to make sure the engine is firing within an acceptable operating range based on load and demand. If a fault occurs, the system triggers diagnostic codes and provides the end user with troubleshooting information along with detailed instructions on how to isolate the problem and repair the engine as quickly as possible.”

The system can be ordered using part number **2576123-S** through your Kohler source of supply. ■

SERVICE TOOLS

Ordering Special Service Tools

Servicing KOHLER engines requires the right tools for the right job, including special service tools for diagnostics and service repair. Now you can order special service tools easily and conveniently from **SPX Corporation**, Owatonna, Minnesota, one of the nation’s finest tool suppliers. Simply refer to the Kohler Engine Parts Bulletin #228 and **call SPX at 1-800-533-0492**.

For **International service outlets**, please fax orders directly to SPX Corporation Export Department at **1-800-283-8665**.

► FROM 1

Buffalo Turbine

Syracuse easily spins the turbine of the Model KB Debris Blower that's not connected to the power source with a flick of the wrist to demonstrate and adds, "There's not a lot of shock load here, and you're not turning a big welded impeller fan. The turbine has 25 blades and vanes that are die-cast aluminum. They are strong, light, and unusually quiet. The noise you hear when I power this up is the air rushing through."

Buffalo Turbine sells the Model KB — powered by a KOHLER Command® 20hp horizontal V-Twin OHV engine — as a self-contained trailer unit that can be pulled by utility vehicles, all-terrain vehicles, golf carts, or pick-up trucks. Municipalities, parks and transportation

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departments, auto racing tracks, and auto and tire test facilities use KBs to clear debris, gravel and brush from roads, lawns, bike paths, and drainage ditches, but 85 percent of the sales are to golf courses.

"No doubt about it," says Ed Feiling, Sales Representative at **Pitt Auto Electric**, the Pittsburgh-based Kohler Engines distributor serving Buffalo Turbine. "It's a rapidly growing company simply because they're making a better mousetrap. Like the old saying goes, customers are beating a path to their door."

Pitt Auto is also cast from a different mold than many Kohler Engine distributors because it places little emphasis on the lawn and garden market. "What makes us different," says Feiling, "is that we're largely an industrial engine house. Besides Kohler, we handle big diesels from a number of lines, and we also have a hands-on service department in-house. A customer like Buffalo Turbine benefits from those strengths, plus we're flexible in terms of inventory. We'll sell the Kohler engines to Buffalo in blocks, but we'll warehouse them and deliver in batches that add up to about an engine a day."

Buffalo Turbine's design prowess and innovation was only beginning to rev up with the Model KB. Last year, the company introduced its antithesis: a Kohler-powered Greens Fan that takes an unusually sophisticated approach



The Buffalo Turbine team from left to right: Paul Syracuse – General Manager; Louis Horschel – Owner; Cheryl Horschel – Vice President; and Karl Horschel.

QUICK READ

By turning to a lightweight and quiet turbine to drive a debris blower, Buffalo Turbine is again proving that product design can drive profits. The Model KB debris blower — powered by a KOHLER Command 20hp engine — is a favorite of golf courses because it easily clears fairways. The company has introduced another innovative Kohler-powered product: a Greens Fan that creates a gentle "breeze" to accelerate the surface drying of golf greens without drying the soil below. And there's also the new Kohler-powered debris blower being developed for use on Mr. Sweeper vacuum trucks, and a powerful "turbulent air" duster/sprayer for use in combatting the West Nile virus.

The Model KB Debris Blower and Model CSII Sprayer (above right, and detail shown below) are two of Buffalo Turbine's best sellers.



Gowanda, New York
www.buffaloturbine.com

Buffalo Turbine sells the Model KB — powered by a KOHLER Command 20hp engine — as a self-contained trailer unit that can be pulled by utility vehicles, all terrain vehicles, golf carts, or pick-up trucks.

to drying or cooling golf greens by producing a three to five mile-per-hour “wind,” just six to eight inches above a green.

“The Greens Fan is purposely designed to provide a very controlled flow of air,” says Syracuse. “We’ve done a tremendous amount of research about how grasses grow and, specifically, about transpiration — how plants breathe and give off water and waste product vapors. How a golf green dries is a science that is still not easily understood by the industry,

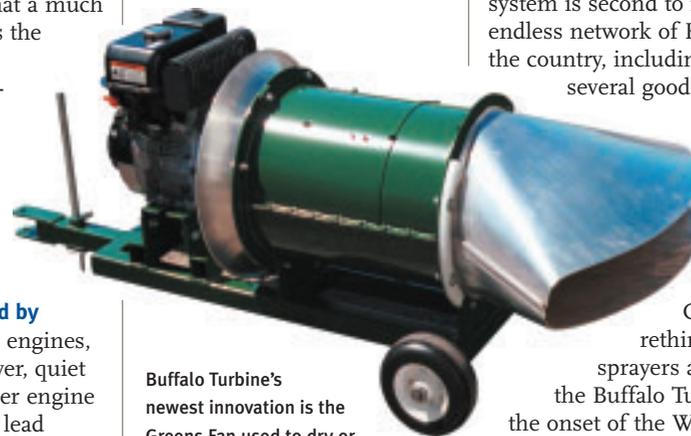
Soil plugs from aeration littering your fairway? No problem. Buffalo Turbine’s powerful Model KB simply blows them out of play.



and I must say it isn’t intuitive. You’d think that the more air you blow on a green, the faster it would dry. But it turns out that a much smaller and controlled air flow across the surface of a green — like a gentle breeze — enhances natural transpiration and is much healthier than aiming a lot of air down at the grass itself. You want to dry the green’s surface, not the grasses and the soil below, or, for that matter, the golfers on the green.”

The Buffalo Greens Fans are powered by KOHLER Command PRO® CS 4hp engines, chosen specifically for consistent power, quiet performance and limited rpm. A larger engine could be counterproductive as it may lead some operators to “turn it up” to speed drying. “You want to be adjustable but you don’t want to be able to go too high,” says Syracuse, “The KOHLER engine pulls exactly what it says it’s going to pull. And we can get 18 hours of service on one tank of gas so a golf course can run it all day or even through the night.”

Buffalo Turbine has long been a customer of Kohler Engines for another reason, points out Mike Kelly, Area Manager, who works closely with both Pitt Auto and Buffalo:



Buffalo Turbine’s newest innovation is the Greens Fan used to dry or cool golf greens by producing a gentle three to five mile-per-hour “wind.” The Greens Fan is powered by a KOHLER Command PRO CS 4hp engine, chosen for consistent power, quiet performance and controlled rpm.

“They almost exclusively use Kohler, and a great deal of that has to do with the balance in our aftermarket service network in the field. Some dealers for other engine manufacturers just aren’t comfortable offering service if the product doesn’t have four wheels and a handle, but Kohler’s service network is trained to tackle lawn and garden *and* commercial *and* industrial applications.”

Down still another creative avenue, Buffalo Turbine is working with David Franklin, President of Mr. Sweeper, the Dallas-based manufacturer of the popular units that sweep and vacuum-clean plazas, malls and parking structures around the country. The new partners are currently adding Kohler-powered blower prototypes to the Mr. Sweeper trucks already in the field. The remote-controlled blowers clear debris from under overhangs, parking bumpers, behind and around dumpsters and other obstacles so it can be easily swept and vacuumed. This eliminates the time-consuming step of having a driver get out of the vehicle to use a backpack blower.

“Our next shipment of engines from Kohler will be a special 23hp spec designed to add power and cut our production time,” says Syracuse. “That kind of interest in our company is easy to get used to. Plus I have access to Kohler Engines’ headquarters if I have any concerns or questions, and the support system is second to none. There is an almost endless network of Kohler dealers throughout the country, including Hawaii, where I have several good customers.”

Lastly, the already busy company is also revisiting its own history with the introduction of Model CS II, a heavy-duty sprayer also powered by the KOHLER Command 20. This unit rethinks the large orchard sprayers and dusters that established the Buffalo Turbine back in 1945. Given the onset of the West Nile virus, Buffalo is betting on a spike in demand for this powerful and versatile sprayer that can be mounted on the back of a pick-up truck, mounted to highway or tandem trailers, or even mounted on a tracked vehicle capable of navigating hard-to-access wetlands. The Model CS II uses “turbulent air” to disperse a spray that can attain up to a remarkable 150 feet of horizontal and 100 feet of vertical coverage, not surprising for a company accustomed to bringing better ideas and designs to market. ■

Fast tracking the emerging Colombian market

INTERNATIONAL



Columbia, South America
www.lister-petter.co.uk

Lister Petter Diesel S.A. associates from left to right:
Gabriel Mendoza – Service Parts Manager;
Juan Carlos Gonzalez – Technical Service Manager;
Angela Bawden – Kohler Engines Area Manager;
Carlos Eduardo Gonzalez – Sales Manager; and
Werner Bieler – General Manager.



Product matters. Manufacturing the best engines around has made Kohler engines the choice of OEMs and end-users around the globe. But marketing, distribution, and service are all critical parts of the puzzle — especially when you're entering a region of emerging markets like South America. After establishing a strong foothold in Venezuela, Ecuador, Peru, Bolivia and Chile, the recent Kohler Engines entry into Columbia was based on a proven strategy: developing global talent.

"I know that everyone is always talking about quality," says Angela Bawden, Area Manager, South America – Kohler Engines. "In my opinion, there's no more important quality issue than people. We want to build a team that brings together a variety of disciplines. Choosing the right people as teammates has a lot to do with long-term success."

Kohler Engines chose **Lister Petter Diesel S.A.** to help fast-track the Colombian market for the company's market presence and penetration, its focus on industrial applications, and for its customer-oriented philosophy of service.

"Like most developing markets, Columbia is a business, political, and even cultural challenge," says Bawden. "But when you travel into a new area, what do you do? You find a guide. And no one has more local knowledge in Columbia than Lister Petter. They know the market in ways that can only come from decades of experience."

A leading manufacturer and distributor of generators and diesel engines, Lister Petter brings almost 50 years of experience to the table. It was the first plant in Columbia to assemble diesel engines, and today it represents several large diesel engine manufacturers. Lister Petter also boasts one of the largest networks of dealers in the country, with 70 locations providing sales and service in almost all major cities.

"Our organization is quite similar to Kohler Engines," says Werner Bieler, General Manager of Lister Petter. "Our business has been mainly diesel engines, but the customers, the marketing, and the channels of distribution for gasoline engines are

virtually the same. We anticipate selling a steady stream of Kohler engines to our customers as an alternative to diesels that cost twice as much."

As a graduate of the University of Wisconsin, Bieler has a natural understanding for the differences between the U.S. market and the more rugged Colombian market oriented around construction, agriculture, industry, mining, and energy. As Bieler puts it, "It is not the Colombian dream to own a riding lawnmower."

"We have the largest coal deposits in South America," says Bieler, "and we export coffee, bananas, cut flowers, sugarcane and cotton. But we're also building infrastructure, so construction and the manufacturing sectors are also booming."

Then there's service. Bieler agrees that product matters. "But I think you could say that — on our end — service is our product. When it comes to service, our attitude is: what's good for the customer is good for our business. I think Kohler agrees."

It seems that Kohler Engines and Lister Petter know exactly how to fast-track the emerging Colombian market. ■

"We plan on selling a steady stream of KOHLER engines to our customers as an alternative to diesels that cost twice as much." – WERNER BIELER, GENERAL MANAGER, LISTER PETTER



Power Equipment Systems
Salem, Oregon
www.pesnet.com



Pacific Northwest partner

Heading up the family business is Kelly Yunker, President of PES (second from right), flanked by (from left to right) Wayne Wendland – Education Director, Pete Smith – Sales Manager, and Scott Summers – Operations Manager.

DISTRIBUTOR

Sometimes timing is everything. Just as Kohler Engines began a search for a new distributor in the Pacific Northwest, it received a query from **Power Equipment Systems (PES)** in Salem, Oregon, a leading distribution center for the lawn and garden industry. PES, it turns out, had been interested in carrying Kohler products for decades. “I remember as a child my dad wanting to have a line of KOHLER engines,” says Kelly Yunker, who took over as president of PES when her father, Bill Burrell, passed away in 1995.

Kohler Engines was impressed by the PES proposal and visited the Salem facility in February. On May 1, Power Equipment Systems became the full-line distributor of KOHLER engines in Oregon, Washington, Alaska, and northern Idaho.

“We are pleased to have PES on board,” says Allan Olson, Area Manager – Kohler Engines. “PES has a great working knowledge of the business. I am also struck by the loyalty of the employees. There is a real sense of family there — that the staff would do almost anything for Kelly. That’s an indication of a well-run company, and from one family-owned company to another, there’s a very high level of trust.”

There is no question PES is off to a great start as a Kohler distributor. “Usually there is some handholding involved in the beginning stages, but PES knows what to do,” says Olson.

“KOHLER engines have a great reputation in the field and are supported by nearly all of our customers,” says Yunker. “This is our first high-

er horsepower engine line, which opens up new commercial and industrial markets for us, especially with OEMs.

“It is already proving to be an excellent growth line for us. There’s no doubt that the reason is Kohler,” adds Yunker. “We have gained new commercial and industrial customers and also increased business with existing customers.”

Next year PES is planning an aggressive sales program of spring and summer incentives, largely following Kohler Engines’ CHIP plan (consumer-home owner-industrial-professional). “We appreciate the structure that the program offers, and we’ll be targeting each one of these sectors,” says Yunker.

Always as impressed with KOHLER engines as her father was, Yunker is also pleased to find out how easy it is to deal with Kohler. “Ordering products on-line via KohlerNet is easy,” she says, “and I always get a confirmation within the same business day. Also, when you call Kohler you always get a live voice on the phone, not a recorded message or long menu. It is obvious Kohler cares a great deal about its customers — just like we do.” ■

“This is our first higher horsepower engine line, which opens up new commercial and industrial markets for us, especially with OEMs.” – KELLY YUNKER, PRESIDENT, PES

New packaging: (re)designed to move



Slimmed down and brightened up, the new packaging for the Dealer's Dozen is designed to move the Kohler line of strong-selling air, fuel and oil filters even faster. "We talked to dealers and distributors about what they wanted, and we responded with a package redesign for 2002," says Tom Vallo, Marketing Manager, Service Parts and Distribution – Kohler Engines.

Many dealers are pressed for space, and their first request was for display versatility. Merchandisers can now hang the downsized and footed blister packs from pegs or stand them on shelves. They take up less room and expand display options. With graphics now featuring bright white letters against a bold blue background, there's also greater visual impact and strong reinforcement of the Kohler brand.

"Dealers and distributors also wanted us to package the pre-cleaner with its respective air filter, and we think we've done a nice job," says Vallo. Labeling on the package front now identifies the correct filter for a specific engine model.

"With all information now in English, Spanish and French, the new packaging reflects our growing international presence," adds Vallo, "plus, it's more user-friendly. Because the product is visible through the plastic, consumers will be able to readily identify what they need on their own and take it to the register, leaving sales associates free to assist others with higher-ticket items. Without boxes to open, retailers serving the DIY market will be especially pleased as there's less to damage and displays will be easier to keep in order."

All in all, Vallo anticipates the same warm reception the new packaging received when it was introduced at the Louisville EXPO. ■



KOHLER ENGINES IN ACTION
is now available on the Web!

KohlerEngines.com

KOHLER ENGINES IN ACTION
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OEMs.

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