

# INDUSTRYNEWS

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## **Rick Rollins Purchases Ramco Performance Filters**

Rick Rollins, owner of Rollins Performance has just purchased the assets of Ramco Performance Manufacturing. The new operation is called Filter Solutions Technologies, LLC (FST Performance). FST Performance is in the process of moving RAMCO from North Dakota to Florida but RAMCO is still in full operation.

RAMCO Performance offers a complete line of fuel filter products proven in the OEM, Heavy Duty and racing markets. The FloMax 300™ filtration system represents a significant advancement in filtration technology for the performance industry by combining technologies in use in the heavy-duty and aviation industries. Ramco's experience in the commercial filtration industry has resulted in the design of a fresh concept which offers the highest filtration efficiency and includes many features which makes installation a snap. Field tests and dyno results have exceeded all expectations for the product.

The high fuel flow capabilities - 300 GPH - and extremely low fuel flow restriction of the FloMax 300 coupled with highly efficient 5 micron filtration and water separation make it the most innovative and efficient system ever. Manufactured from solid billet aluminum - absolutely no castings - the lightweight and extremely compact FloMax 300™ is designed for use in gasoline, racing fuel, ethanol and methanol applications. The red anodized finish combined with the premium chrome/silver filter makes for a striking appearance.

The FloMax 300™ incorporates a unique EZMOUNT™ integral mounting flange which allows easy mounting to either a tubular chassis rail or surface mount and combined with multiport fuel ports offers the utmost in installation flexibility.

The FloMax 300™ can be installed on the suction or pressure side of the fuel system. The easily replaceable filter element is self-contained, requires no messy and questionable canister cleaning and totally eliminates any chance of fuel system contamination.

For more information about FST Performance products, contact sales at 407/323-0122 or [info@ramcoperformance.com](mailto:info@ramcoperformance.com)

## **2011 Ford Shelby GT500 In High Demand**

Customer demand for Ford's new 2011 Shelby GT500 is growing nearly as fast as the world's fastest production pony car. More than 3,300 orders have been placed for the new Shelby GT500. To ensure exclusivity, U.S. sales of the 2011 Shelby GT500 will be limited to 5,500 units.

"We are pleased with the pace of retail orders for the 2011 Shelby GT500," said Fritz Wilke, Mustang brand manager. "The car continues to be popular with sports car enthusiasts and collectors who are blown away by the increase in horsepower and performance. The limited production of the 2011 should make this year even more desirable."

Standard 2011 performance features include the 550-horsepower aluminum 5.4-liter V8 engine, a new 2.75-inch exhaust system, revised brake cooling and pedal box construction for more consistent brake pedal efforts and feel, and electric power-assisted steering (EPAS).



SVT worked hard to make EPAS better than the outgoing hydraulic steering system, with improved torque build-up and road feel.

The engine is built around a new 5.4-liter aluminum-block and is supercharged, which produces 550 horsepower and 510 lb.-ft. of torque, a 10 horsepower increase over the 2010 model. The engine is 102 pounds lighter than its predecessor, delivering a better power-to-weight ratio, improved fuel economy, acceleration, handling and steering precision.

The new engine uses a state-of-the-art Plasma Transferred Wire Arc (PTWA) liner coating, a process that applies a 150-micron composite coating that contains nanoparticles on the internal surfaces of engine cylinder bores, replacing cast-iron liners typically used in aluminum engine blocks. The Intellectual Property Owners Education Foundation honored the inventors of the Ford-patented PTWA technology with the 2009 National Inventor of the Year Award.

New for 2011 is an optional glass roof providing customers with yet another open-air option that does not compromise the coupe's versatility, headroom or climate-controlled environment. Three times more 2011 GT500s have been ordered with the glass roof compared to the base Mustang showing the popularity of this new feature.

Interior options have proven popular, considering that almost 70 percent of the GT500s have been ordered with the Electronics Package, which includes voice-activated navigation, SIRIUS Travel Link(TM), HD Radio and dual-zone electronic automatic temperature control.

The new SVT Performance Package is also proving to be a popular option with just over 68 percent of coupe orders selecting the enhanced performance delivered through this all-new option. The package was developed to provide track performance. SVT engineers worked directly with Goodyear to develop all-new Goodyear Eagle® F1 SuperCar G: 2 tires that give supercar grip and control levels. The optional package also offers unique styling, staggered lighter wheels with 19-inch fronts and 20-inch rears, a numerically higher rear axle ratio, stiffer springs and dampers, and a lowered ride height. The SVT Performance Package is available on both the coupe and convertible.

Other standard items new for 2011 include high-intensity discharge headlamps, MyKey(TM) programmable vehicle key, integrated spotter mirror and fold-down rear headrests.

Source: Ford Motor Company

## 100 mph Electric Motorcycles

Brammo, Inc. announced on July 15th it will begin production of an electric sportbike, calling it the "Empulse." Brammo demonstrated a pre-production prototype and all three production models of the Empulse will be capable of sustaining 100 mph.



The three models will have different battery capacities, all utilizing an innovative proprietary array, the Brammo Power(TM) battery and vehicle management system. The Empulse is available for immediate order and deliveries will commence in 2011.

Craig Bramscher, Founder and CEO of Brammo, said, "Motorcycle riders have been requesting increased speed and range and I am proud and delighted to reveal these game-changing Brammo electric motorcycles. Our customers expect Brammo to design and produce the world's most exciting (and affordable) electric motorcycles and that's exactly

what we have done." Bramscher continued, "Today's announcement promises no more range anxiety for Brammo customers."

All three models of the Empulse will be freeway capable and will enjoy a top speed in excess of 100 mph. Each of the three models will offer customers a different average range from a single charge. The Empulse 6.0 is capable of 60 miles (96 kilometers) average range, the Empulse 8.0 is capable of 80 miles (129 kilometers) average range and the top of the line Empulse 10.0 is capable of a travelling 100 miles (161 kilometers) on a single charge. Range of all three models can be extended by travelling at lower speeds.

The estimated MSRP for the Empulse trio when deliveries start next year are; Empulse 6.0 \$9,995, Empulse 8.0 \$11,995 and Empulse 10.0 \$13,995. All three models will be eligible for Federal and State tax incentives. For example, the Empulse 10.0 may cost as little as \$7,000 in certain states after Federal and State incentives.

Brammo's announcement sees the first application of Brammo's innovative Brammo Digital Drivetrain(TM) including the Brammo Power(TM) battery pack and Brammo Power(TM) vehicle management system. Brammo's breakthrough in price/energy density is at the heart of today's announcement and is unequalled in the electric vehicle industry. The Empulse is also the world's first production electric motorcycle to have a water cooled motor.

Brian Wismann, Director of Product Development at Brammo and designer of the Empulse, said, "The Empulse reveals the significant price performance that we can deliver using Brammo Power(TM) technology. Just like it did with the Enertia Powercycle, Brammo has again raised the bar in terms of electrical drivetrain innovation and time to market."

Customers can place their order for an Empulse by visiting the Brammo website [www.brammo.com](http://www.brammo.com). Deliveries are expected to commence in mid-2011 and orders will be filled on a first-come, first-served basis. Customers placing an order will be expected to place a refundable deposit once their Empulse is within 90 days of delivery. The Brammo range of motorcycles will be available globally through select motorcycle dealerships and participating Best Buy stores during 2011.

Brammo is expanding its dealership network both within the USA and in Europe and Asia. Organizations interested in selling and servicing the Brammo range of motorcycles, which includes the award winning Enertia, can register their interest by visiting [www.brammo.com/dealerapplication](http://www.brammo.com/dealerapplication)

Adrian Stewart, director of Sales and Marketing at Brammo, said, "We are always looking for individuals and organizations that want to enter into a long term business partnership with Brammo to sell and service our range of electric vehicles. JCAM, our distributor and dealer in Hong Kong and Singapore is an excellent example of such an organization."

Brammo Power(TM) technology employed in the Empulse is race proven in the Brammo Empulse RR race bike. You can see the Empulse RR in action at the 2010 Red Bull Grand Prix, Mazda Raceway Laguna Seca. Brammo will race the Empulse RR in the FIM e-Power series which will see 15 electric motorcycle teams from around the world compete on this demanding circuit.

Brammo CEO Craig Bramscher will be unveiling the Empulse at the 2010 Red Bull Grand Prix at the Mazda Raceway Laguna Seca in Monterey, California, 11.15am, Saturday July 24th 2010.

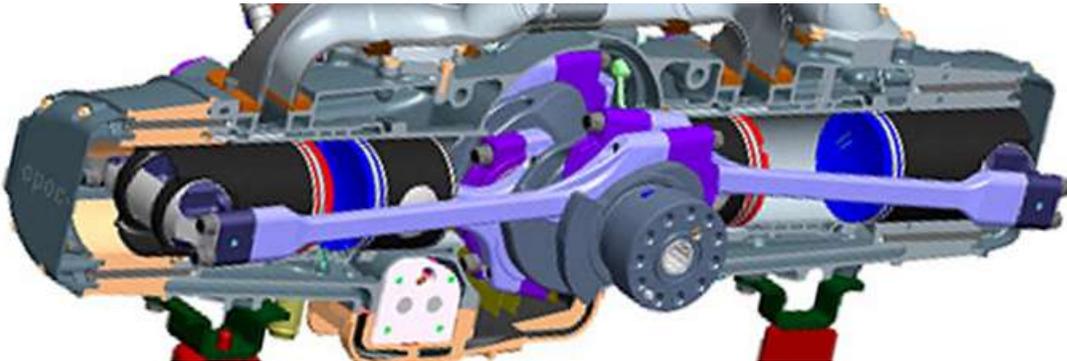
Later this year the Empulse will be at EICMA Milan, Italy and at the Macau Grand Prix, China.

Source: Brammo, Inc.

## EcoMotors Revolutionary opoc Engine

### ***Opposed-Piston Opposed-Cylinder Engine***

This patented design creates a ground-breaking internal combustion engine family that will run on a number of different fuels, including gasoline, diesel and ethanol. The engine operates on the 2-cycle principle, generating one power stroke per crank revolution per cylinder. It comprises two opposing cylinders per module, with a crankshaft between them, and each cylinder has two pistons moving in opposite directions. This innovative design configuration eliminates the cylinder-head and valve-train components of conventional engines, offering an efficient, compact and simple core engine structure. The result is an engine family that is lighter, more efficient and economical, with lower exhaust emissions compared with conventional designs. Here you can see this revolutionary 2-stroke engine in operation,



which helps to illustrate the simplicity, elegance and compactness of its design.

The revolutionary opoc® architecture of opposed pistons and opposed cylinders provides unparalleled benefits:

**High Efficiency:** The unique engine architecture - which offers true modular displacement capability -- delivers up to 50% greater fuel efficiency compared with conventional engines of similar output, along with a corresponding reduction in greenhouse gas emissions.

**Half the weight and half the size of conventional engines:** The opoc® engine provides unparalleled power density and flexibility in automobile and truck design as well as other engine applications.

**Low Cost:** With 50% fewer parts than a conventional engine, the opoc® is less expensive to manufacture, to purchase, to operate and to tool up.

Established in early 2008, EcoMotors is quickly achieving critical mass in terms of changing the landscape of internal combustion power. Based in Troy, Mich., EcoMotors is commercializing the unique opoc® engine for use in cars, light trucks, commercial vehicles, aerospace, marine, agriculture, auxiliary power units, generators, etc. Anywhere conventional gas or diesel power is currently utilized, opoc®

represents a better propulsion solution.

EcoMotors is led by Don Runkle (Chief Executive Officer) and Prof. Peter Hofbauer (Chairman and Chief Technical Officer).

opoc® was conceived by Prof. Peter Hofbauer - who formerly as Head of Powertrain Development at VW designed the original VW high speed diesel engine that became the foundation for the Jetta Clean Diesel that won 2009 Green Car of the Year honors. Don Runkle, as former VP of N.A. Engineering at GM, spearheaded the GM EV1 electric car along with countless other innovations.

EcoMotors is a Khosla Ventures portfolio company. Khosla Ventures offers venture assistance, strategic advice and capital to entrepreneurs. The firm helps entrepreneurs extend the potential of their ideas in breakthrough scientific work in clean technology areas such as solar, battery, high efficiency engines, lighting, greener materials like cement, glass and bio-refineries for energy and bioplastics, and other environmentally friendly technologies as well as traditional venture areas like the Internet, computing, mobile and silicon technology arenas. Vinod Khosla founded the firm in 2004 and was formerly a General Partner at Kleiner Perkins and founder of Sun Microsystems. Khosla Ventures is based in Menlo Park, California.

EcoMotors International CEO Don Runkle announced recently that the Company has secured substantial Series B funding - sufficient to complete engineering and testing of the opoc® engine.

The two exclusive investors in EcoMotors' Series B are Khosla Ventures of Menlo Park, California and Bill Gates. The two principals, Vinod Khosla and Bill Gates, indicate their stakes in EcoMotors reflect a shared belief in the global potential of the opoc® technology and the impact it can have on transportation emissions because of its cost effectiveness.

"opoc® is precisely the kind of game-changing innovation that we at Khosla Ventures are passionate about," said Khosla. "The only truly disruptive technologies are those that can provide not only payback in months but also economic and carbon benefits to large segments of the world's population without the need for subsidies or massive infrastructure investments. Among next-generation propulsion systems, the opoc® engine is broadly applicable and can provide lower carbon emissions than almost any other technology."

"The opoc® engine can be an important step in providing affordable, low-emission transportation for the developing world," said Gates. "EcoMotors has developed a promising technology that could help reduce levels of greenhouse gas emissions in a low-cost, globally relevant way."

Source: EcoMotors International

## **22 Inch Wheels Standard On A Production Car**

2011 Ford Edge features four new wheel designs, including 18- and 20-inch wheels for Edge SEL and Edge Limited, and 22-inch wheels that highlight the 2011 Ford Edge Sport

New 18- and 20-inch wheels are one-half inch wider than the outgoing wheels, which helps improve handling

The all-new wheels of the 2011 Ford Edge, on their own, tell a story about the popular midsize crossover's new, bolder exterior look. Like Edge itself, the new wheel choices are more engaging and expressive.

"We made a conscious effort to give the wheels a more fluid, more organic look," said Hak Soo Ha, exterior design manager of the 2011 Ford Edge. "We wanted a look that conveys more of a handcrafted, premium treatment to give the new Edge an unmistakable appearance."



The new wheels also give a hint to the cutting-edge, class-exclusive features found inside. Available MyFord Touch driver connect technology highlights the list of 11 class-exclusive features found on the 2011 Ford Edge.

"The Edge customer values and appreciates style and technology. Both are key reasons for purchasing an Edge today," said Brett Burin, Edge marketing manager. "Our wheels have to reflect those customer desires."

Each series - SE, SEL, Limited and Sport - has a unique wheel. Both the SEL and Limited offer an optional chrome-clad wheel for those desiring a brighter or larger wheel option. "The majority of our customers choose to upgrade to either the brighter wheel on the SEL or the larger 20-inch wheel on the Limited, so it's important we continue to provide those options," said Burin. Forged aluminum wheels are often the top choice in the aftermarket because of their premium quality and ability to combine high strength and light weight in one package.

"You can't just throw 22-inch wheels on any vehicle; they have to be carefully matched for the ride and handling our customers demand," Kreder said. "The specially tuned suspension has been carefully engineered to deliver a more connected feel between the driver and the road, and the 22-inch wheels provide a more direct input response to Edge Sport."

Complementing the new wheels is a sport-tuned suspension with revised front strut tuning, rear spring rates and rear jounce bumper, which helps stiffen the suspension for a flatter, sportier ride. Key to the suspension tuning is the addition of high-flow shocks. These shocks allow tuning for both handling and ride without compromise to either.

"Drivers will feel a firmer connection to the road when going around a corner, and less jarring when hitting a pothole, for example," said Kreder. "It's allowed us to make Edge Sport much more comfortable without losing any handling."

The tires were designed and engineered specifically for Edge Sport and deliver similar grip levels as those found in a Mustang GT tire combined with all-season performance. The wheels feature a polished finish with painted Tuxedo Black spoke accents. Ford also match-mounts the tires, a step not taken by all manufacturers. This means wheels are precisely aligned with the tires, and wheel-tire assemblies are centered on precision-machined hub pilots. The

wheel/tire/hub assemblies roll truer, which helps eliminate noise and vibration while improving ride comfort.

"Edge customers tell us that styling and technology are key drivers for them, so everything we added for the 2011 Edge had to touch those points," said Burin. "The new wheel lineup is one of several examples that deliver on those attributes, and something customers will notice immediately."

SOURCE Ford Motor Company

## Industry Press Releases July 19 2010

### LINGENFELTER PERFORMANCE ENGINEERING OFFERS NEW TRIGGER CONVERSION MODULE

DECATUR, Ind. - Lingenfelter Performance Engineering (LPE) offers the TRG-002 58X to 24X Trigger Conversion Module that allows Gen IV General Motors V8 engines - such as the LS7 or LS3 - to be installed in earlier vehicles like the 1997-2005 Corvette or 1998-2002 Camaro or Firebird without having to disassemble the engine to change the camshaft timing gear or crankshaft reluctor wheel.

"Our new Trigger Conversion Module uses a plug-and-play design to connect directly to the engine's existing wiring harness and factory engine sensors, allowing for a seamless and time-saving installation," said Ken Lingenfelter, owner, Lingenfelter Performance Engineering. "The conversion module has its own power and ground, and has been designed using the latest automotive-qualified components with extended temperature range operation."



Lingenfelter's Trigger Conversion Module uses a 16-bit microcontroller with an enhanced timer system to achieve precise signal timing for late-model GM engine applications. The product features a fully encapsulated (potted) construction for increased durability and a high temperature glass-filled Nylon low-profile case. Transient voltage and over-voltage protection have been incorporated into the design to accommodate the ever-increasing electrical demands of modern vehicle control systems. It also incorporates a bi-color LED to indicate the operating status.

The Lingenfelter Performance Engineering TRG-002 58X to 24X Trigger Conversion Module (part number L460065397) is available direct from Lingenfelter Performance Engineering and retails for \$254.95.

For more than 30 years, Lingenfelter Performance Engineering has created a matchless heritage of bringing astounding new capabilities to the world's most sought-after sports cars. This legendary record of precision engineering continues today, as the highly skilled Lingenfelter production team continues to target design excellence in engine packages, superchargers and high-performance aftermarket components that refine power, speed and control. For more information, visit [www.lingenfelter.com](http://www.lingenfelter.com), contact Lingenfelter Performance Engineering at 1557 Winchester Road, Decatur, IN 46733, or call 260.724.2552.

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## **DYNOMAX® OFFERS PERFORMANCE EXHAUST OPTIONS FOR 2010 MUSTANG PLUS NEW SYSTEM FOR 05-09 GT MODELS**

Premium Stainless Steel Exhaust Systems Push Horsepower and Torque Levels to New Heights; Feature the Company's Brand-New Tips

MONROE, Mi., July 15, 2010 - The 2010 Ford Mustang GT can gain even more horsepower and torque plus great looks through the addition of any of the new performance exhaust systems available from DynoMax® Performance Exhaust. The new cat-back systems are available at performance retailers nationwide.

DynoMax, an innovator in performance exhaust systems and mufflers, is manufactured and marketed by Tenneco Inc. (NYSE: TEN). DynoMax is one of North America's leading suppliers of dyno-proven exhaust technologies for muscle cars, diesel and gas trucks and sport utility vehicles, and sport compact/European cars.

All of the new DynoMax performance exhaust systems include high-quality, 409-grade stainless steel, a premium material that provides extended protection against corrosion, and include the new logo-embossed DynoMax double-walled "show" tips.

The systems - built specifically for "Pure Unadulterated POWER" - offer coverage of several late-model Mustangs, including the 2010 Ford Mustang GT and 2005-09 Ford Mustang GT. The systems offer enthusiasts two separate performance muffler options: Ultra Flo™ Welded or the Race Bullet™.

Boosting horsepower by 20 and gaining 18-ft. lbs. of torque, the new axle-back Ultra Flo Welded system for the 2010 Mustang (p/n 39488) includes 2-1/2-in. stainless steel piping, routed to match OE piping for easy installation and trouble-free performance, and new 3-1/2-in. stainless slant-cut specialty tips. The system includes a pair of legendary DynoMax Ultra Flo Welded mufflers, a straight-through, unrestricted design that is dyno-proven to support up to 2,000 SCFM and 2,000 horsepower. These mufflers are 100-percent welded for exceptional life and durability, and also include exclusive Continuous Roving Fiberglass (CRF) technology to absorb unwanted interior resonance and provide a rich, deep performance tone.

The new cat-back DynoMax Race Bullet system for the 2010 Mustang (p/n 39489) features 3-in. stainless steel piping and 4-in. new style tips plus Race Bullet mufflers and x-pipe. Built to offer wide-open performance and sound, the system includes the DynoMax Race Bullet muffler, an extremely lightweight, compact muffler design. Also 100-percent welded for maximum durability, the Race Bullet utilizes CRF technology which helps provide an incredibly throaty performance race tone.

The new stainless system for 2005-09 Mustang GT models (p/n 39414) features the DynoMax Ultra Flo Welded mufflers, 2-1/2-in. pipes and brand-new style 3-in. tips. This system posted a gain of 6 horsepower and 8 foot pounds of torque during recent dyno testing.

All DynoMax systems include OE-quality hangers and brackets for easy, fast installation.

The new stainless systems are covered by a limited lifetime warranty and exclusive 90-day Performance and Sound Guarantee, an offer that lets enthusiasts try the muffler for 90 days. Consumers can return the product within 90 days for a full refund of its purchase price. Additional restrictions apply and can be found at [www.DynoMax.com](http://www.DynoMax.com).

DynoMax offers a full complement of Ford Mustang products, including power-enhancing Super Turbo and Ultra Flo exhaust systems covering applications 1986 and newer; direct-fit muffler applications for Mustangs 1984 and newer; and header coverage for 1964 thru 2003 Mustang V8 applications.

For more information about DynoMax products for the Mustang, please visit [www.DynoMax.com](http://www.DynoMax.com), contact your nearest DynoMax supplier or call 1-734-384-7806. For the name and location of your nearest DynoMax retailer, check out the Dealer Locator at [www.DynoMax.com](http://www.DynoMax.com).

Tenneco is a \$4.6 billion manufacturing company with headquarters in Lake Forest, Illinois and approximately 21,000 employees worldwide. Tenneco is one of the world's largest designers, manufacturers and marketers of emission control and ride control products and systems for the automotive original equipment market and the aftermarket. Tenneco markets its products principally under the Monroe®, Walker®, Gillet™ and Clevite® Elastomer brand names.

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## **NEW CHROME MOLY ROCKER SHAFT WITH DLC FOR HEMI: ELIMINATES DEFLECTION WORRIES, INTRODUCES FIRST SHAFT OF ITS KIND**

Warren, Michigan: Trend Performance unveils a new rocker shaft for 5.7L and 6.1L high-performance Hemi engines. Its advantages are strength, reduced friction, and affordability. The shafts will be sold through Livernois Motorsports of Dearborn Heights, Michigan.



Created to overcome deflection and to improve valve-train stability when used in conjunction with high-performance camshafts and valve train, Trend produces this new shaft from thick-wall 4130 chrome molybdenum, subjects it to two heat treatments-through-hardening and nitriding-and finally applies a DLC (diamond-like coating).

The nitriding process not only contributes a tough surface skin (.015in deep) but also produces the ideal surface for the application of the DLC. The DLC provides increased wear-resistance and reduced coefficient of friction. The 4130 chrome molybdenum material is selected not only for its strength and excellent

heat-treatment properties but also for its ability to facilitate a fine surface finish of .5 micro inches (Ra-roughness average).

With a diameter and length of .865in and 19.3125in respectively, the new shaft directly replaces the original (contained within the Mopar rocker assembly, Part Number 053021574AA)

Obviously, this new Trend shaft is equipped with all the correct mounting holes, requisite lubricating holes, and freeze plugs installed in the ends. Trend believes it to be the finest, most affordable shaft of its kind.

For further information contact:  
Livernois Motorsports  
2500 South Gully Road,  
Dearborn Heights, MI 48125  
Telephone (313) 561-5500

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