

## BORGWARNER VARIABLE CAM TIMING (VCT) TECHNOLOGY DRIVES 2011 FORD 6.2-LITER SUPER DUTY TRUCKS

BorgWarner's Award-Winning Cam Torque Actuated VCT Technology
Contributes to Improved Horsepower, Increased Fuel Economy and Reduced Emissions

Auburn Hills, Michigan, February 7, 2011 – BorgWarner's Cam Torque Actuated (CTA) variable cam timing (VCT) technology and timing drive system contribute to improved horsepower, increased fuel economy and reduced emissions for the all-new 2011 Ford Super Duty 6.2-liter V8 gasoline engine. By optimizing variable cam timing, BorgWarner's CTA technology enables engines to run more efficiently at all engine speeds with faster response than traditional hydraulic oil-actuated VCT systems. BorgWarner's leading technology helps these Super Duty trucks provide best-in-class 385 horsepower, contributes to delivering 405-lb-ft of torque and assists in attaining 15 percent better fuel economy than the previous 5.4-liter engine.

"BorgWarner's CTA technology and timing drive system help these Ford trucks deliver the powerful performance drivers expect with the added benefits of improved fuel economy and reduced emissions," said James Verrier, President and General Manager, BorgWarner Morse TEC. "The technology debuted on the 2009 Ford Escape and was launched earlier this year on the 2011 Ford Mustang GT. We're pleased that Ford is continuing to use our CTA technology on a growing number of vehicles."

Designed to maximize fuel economy and performance, variable cam timing optimizes the opening and closing of intake and exhaust valves throughout the engine operating range. Unlike traditional cam phasing methods, which typically use engine oil pressure to phase the camshaft, BorgWarner's patented CTA technology utilizes the existing torsional energy in the valve train, similar to a hydraulic ratchet, to phase the camshaft. CTA cam phasers operate more quickly and under a wider range of engine speeds and temperatures than traditional oil pressure actuated cam phasers. In addition, CTA cam phasers are fully functional during engine starting, the critical time when a large percentage of engine emissions occur and before the catalytic converter is effective.

BorgWarner's CTA variable cam timing technology earned a 2009 Automotive News PACE Award as well as an Automotive News PACE Innovation Partnership Award for collaboration with Ford on 2009 3.0-liter Duratec V6 engine.

## **About BorgWarner Morse TEC**

BorgWarner Morse TEC is a world-leading designer and producer of systems and components for engine timing and drivetrain applications on passenger cars, trucks and power sport vehicles. Key technologies include fully integrated engine timing systems, advanced drivetrain and HY-VO® power transmission chains, and innovative variable cam timing (VCT). BorgWarner Morse TEC provides low friction, durable, economical systems with low noise, vibration and harshness (NVH) to deliver improved fuel economy, reduced emissions and better performance.

## **About BorgWarner**

Auburn Hills, Michigan-based BorgWarner Inc. (NYSE: BWA) is a product leader in highly engineered components and systems for vehicle powertrain applications worldwide. The company operates manufacturing and technical facilities in 57 locations in 17 countries. Customers include VW/Audi, Ford, Toyota, Renault/Nissan, General Motors, Hyundai/Kia, Daimler, Chrysler, Fiat, BMW, Honda, John Deere, PSA, and MAN. The Internet address for BorgWarner is: http://www.borgwarner.com.



BorgWarner's award-winning Cam Torque Actuated (CTA) variable cam timing technology and timing drive system help improve the horsepower, fuel economy and emissions of the all-new 2011 Ford Super Duty 6.2-liter V8 gasoline engine. Photo courtesy of the Ford Motor Company.