



**Immediate Release**  
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## **BORGWARNER'S ENGINE TIMING TECHNOLOGIES**

### **DRIVE THE FORD 5.0-LITER V8 ENGINE**

*BorgWarner's Variable Cam Timing and  
New Low-Friction Silent Chain Technology  
Improve Engine Efficiency*

Auburn Hills, Michigan, April 23, 2015 – BorgWarner's advanced engine timing technologies, including cam torque actuated (CTA) phasers and new inverted tooth silent timing chains, drive Ford's 5.0-liter V8 engine. The engine powers the 2015 Ford Mustang GT and is available as an option on the all-new F-150, the toughest, smartest, most capable F-150 ever. BorgWarner's CTA phasers with mid-position lock technology enable greater control of valve timing over a broad range of engine speeds, and its newest silent timing chain reduces friction while improving wear performance.

"BorgWarner has supplied Ford with our advanced timing technology since the debut of the model year 2011 engine. For the upgraded 435 HP V8 engine for the 2015 Ford Mustang, we worked closely with Ford to develop new VCT and timing chain solutions to meet their challenging specifications," said Joe Fadool, President and General Manager, BorgWarner Morse TEC. "At BorgWarner, we understand the complex interactions between engine timing components. From concept to launch and beyond, we collaborate with engine designers and manufacturers to tune and optimize integrated systems for specific applications."

BorgWarner's CTA phasers use the existing torsional energy in the valve train to actuate more quickly, use less engine oil and operate under a wider range of engine speeds and temperatures than conventional VCT systems. For added calibration opportunities, BorgWarner's patented mid-position lock technology allows an increased range of camshaft positioning with a default stop at an intermediate position within the

## BorgWarner Inc. (BorgWarner's Engine Timing Technologies Drive the Ford 5.0-liter V8 Engine) – 2

expanded range of travel. The unique passive mid-lock technology ensures failsafe return to the middle position for reliable engine starts in any operating condition.

BorgWarner's new compact, low-friction silent timing chain features thicker links with an optimized link back shape to reduce friction. Lower friction improves durability, reduces noise and increases engine efficiency. Super finish aperture (SFA) links and hard coated pin technology also improve wear performance even in severe environments.

### **About BorgWarner**

BorgWarner Inc. (NYSE: BWA) is a product leader in highly engineered components and systems for powertrains around the world. Operating manufacturing and technical facilities in 58 locations in 19 countries, the company delivers innovative powertrain solutions to improve fuel economy, reduce emissions and enhance performance. For more information, please visit [borgwarner.com](http://borgwarner.com).



BorgWarner's cam torque actuated phasers with mid-position lock technology and new inverted tooth silent timing chains improve the efficiency of Ford's 5.0-liter V8 engine.

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