# FORD 4.6 / 5.4 / 6.8

## Value Added Quality Improvements from JASPER

Issue / Concern:	JASPER Solution:
Cylinder blow-by	<ul> <li>100% torque plate boring and honing of engine block utilizing a torque plate and specially-designed ARP2000<sup>®</sup> head bolts.</li> <li>Decreased piston-to-bore tolerances for improved ring sealing.</li> </ul>
Oil pressure problems, VVT codes and upper end noise	<ul> <li>Cam clearances are held to a tighter JASPER<sup>®</sup> standard through the use of CNC boring machines.</li> <li>100% installation of a high volume oil pump, which includes a higher pressure relief valve spring and rigid backing plate for improved oil pressure on 3-valve VVT V8 engines.</li> <li>Verification/machining of 3-valve VVT solenoid housings for straightness.</li> <li>VVT solenoid housing screen undergoes a thorough ultrasonic and pass through wash process to verify proper oil flow to actuators (screen not available separately).</li> <li>100% NEW installation of the latest design camshaft actuator VVT solenoids (excludes VVT Delete engine option).</li> </ul>
Worn VVT actuators	<ul> <li>Installation of new or remanufactured cam gear actuators on 3-valve VVT engines.</li> </ul>
Head gasket failure	<ul> <li>MLS head gaskets</li> <li>Block and head surfaced to 50-150 RZ</li> <li>100% new head bolts</li> <li>Piston compression height reduced to maintain O.E. compression ratios</li> </ul>
Spark plug thread concerns	<ul> <li>100% inspection of all threads.</li> <li>Damaged threads replaced with TIME-SERTS<sup>®</sup>, which allow for increased thread engagement.</li> </ul>
Bearing failure, knocking, holes in block	<ul> <li>JASPER oil tolerances are more precise than O.E.</li> <li>Micro-polished crank</li> </ul>

### 3 Year/100,000 Mile Nationwide Parts & Labor Warranty

Full warranty disclosure available at www.jasperengines.com or upon request. Specifications subject to change without notice.



#### Remanufactured in the U.S.A.

815 Wernsing Road • P.O. Box 650 • Jasper, IN 47547-0650 (800) 827-7455 • Fax (812) 634-1820 • www.jasperengines.com

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Early models: Restrictive oil pipe

VVT Delete

- 100% upgrade of early 4.6 DOHC oil pump and screen to high volume pump and large oil tube screen.
- JASPER offers VVT Delete as an option for the 5.4 engine.
- The VVT Delete engine option will have pre-installed locks in the VVT actuators and also comes with a Livernois programmer.
- The VVT Delete engine option is 50 state legal for 2004-2010 applications and includes a CARB E.O. sticker. 2011-2014 applications are CARB E.O. PENDING.
- \* Note for CNG/LP applications: We install hardened valve seats and Stellite face intake and exhaust valves.

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