

2005 6.0L DIT RUNNING CHANGES



1

High-Pressure Stand Pipe

- The high-pressure check valve has been moved from an integral part of the stand pipe to the supply port plug.
- The change began with engine build date October 28, 2004 and engine serial number 6426234 on Indianapolis built engines and 0174191 on Huntsville built engines.



2

High-Pressure Check Valve

- The new high-pressure stand pipe and check valve assembly can be used to replace the current design on the 2004.25 and early 2005 MY engines.



3

High-Pressure Block-Off Tools

- New block-off tools are required when performing ICP diagnostics on an engine equipped with the new style stand pipe and check valve assembly.
- The ICP diagnostic test procedures are the same procedures that were performed on the 2004.25 MY engines.
- Tool part number 303-1163 includes both block-off tools.

2005 6.0L DIT RUNNING CHANGES

Stand Pipe Removal Tool

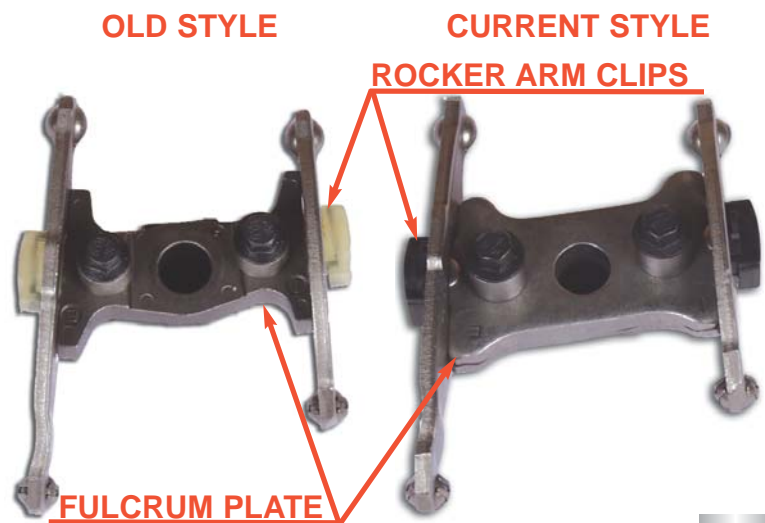
- This tool is used to remove the stand pipe from the branch tube if it separates from the high-pressure check valve during disassembly.
- Tool part number 303-1164.



4

Rocker Arm Fulcrum Plate

- The rocker arm fulcrum plates have a new appearance due to a change in the manufacturing process.
- The plastic rocker arm clip has been made more robust by improving the plastic material.
- **NOTE: Service kits are available for the new fulcrum plates. The new design is reverse compatible with the previous design.**



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VGT Control Valve Connector

- The engine sensor harness has received several changes during the 2005 MY. Most of the changes have been made to reduce chafe points and provide more secure connections.
- One noticeable change is a new VGT control valve connector.
- The new connector will provide a more secure connection to the VGT control valve.
- **NOTE: The VGT control valve did not change.**

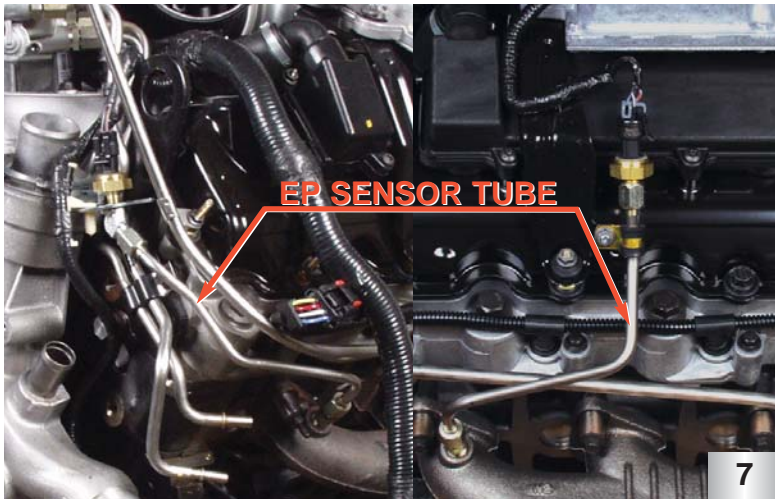


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2005 6.0L DIT RUNNING CHANGES

OLD STYLE

CURRENT STYLE

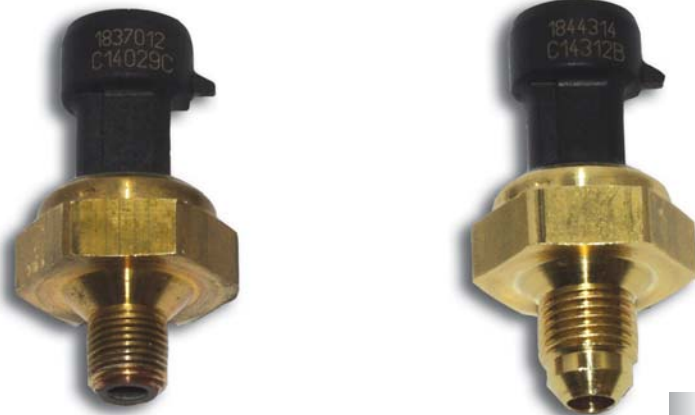


Exhaust Pressure Sensor Relocation

- The Exhaust Pressure (EP) sensor has been relocated to the FICM bracket.
- This change requires a new EP tube and FICM bracket to be used.
- The engine sensor harness had to be lengthened to accommodate the new sensor location.
- **NOTE: It is important to secure the nut on the EP sensor tube when removing the EP sensor.**

OLD STYLE

CURRENT STYLE



Exhaust Pressure Sensor

- The F-series vehicles now use the same Exhaust Pressure (EP) sensor as the E-series previously used.
- The sensor mounting threads changed to improve the parts commonality between the F-series and E-series vehicles.

OLD STYLE

CURRENT STYLE



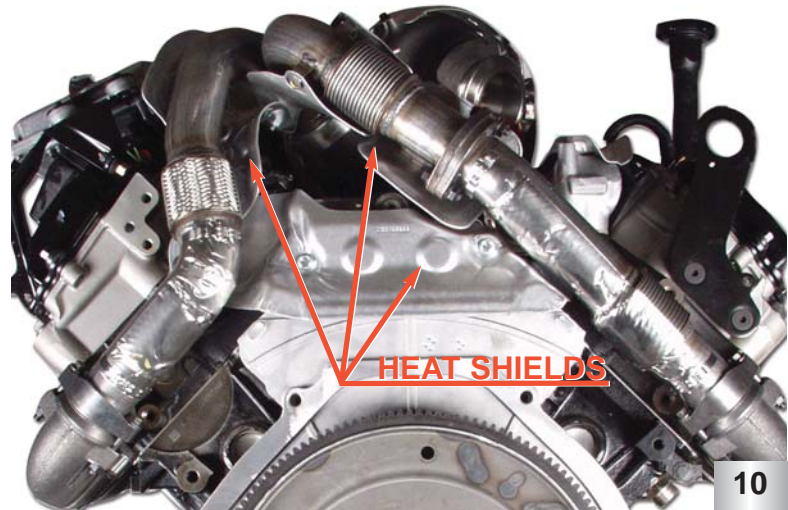
Water Pump Pulley

- The water pump pulley has been made more robust with the use of a thicker flange.
- The new water pump pulley design does not require the separate flange support plate as used on the previous design.

2005 6.0L DIT RUNNING CHANGES

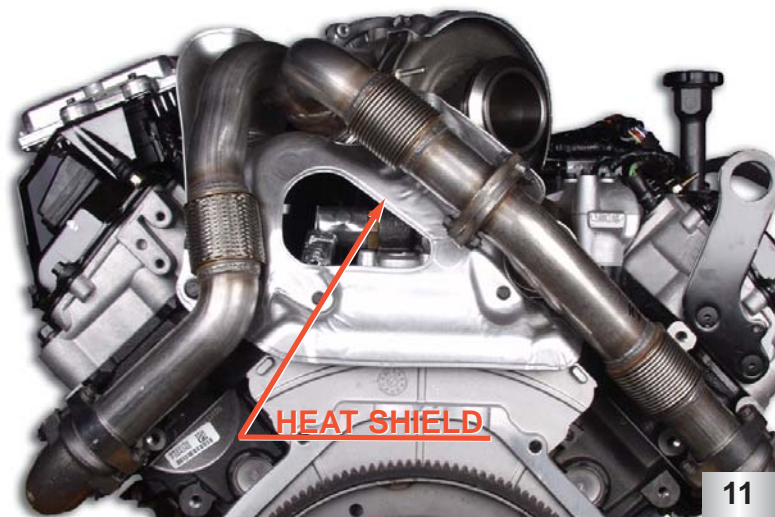
Early Style Rear Heat Shield

- The 2003, 2004, and early production 2005 MY engines have three heat shields in the rear of the engine.
- Two of the shields attach to the exhaust up pipes and the remaining shield attaches to the high-pressure pump cover and left hand cylinder head.



Current Style Rear Heat Shield

- The three heat shields on the 2003, 2004, and early 2005 MY engines have now been incorporated into one large heat shield.
- The new heat shield attaches to the high-pressure pump cover, left hand cylinder head and to the intake manifold.



Heat Shield Mounting Bracket

- The new rear heat shield mounting bracket will have to be removed to gain access to the IPR valve.



2005 6.0L DIT RUNNING CHANGES

2005 Excursion		
Component	Pre-Jan 2005	Post-Jan 2005
High-Pressure Pump	Swash Plate 04 MY Carryover	New V4
Front Cover	04 MY Carryover	Inlet Port
EGR Valve	04 MY Carryover	New Seal
EGR Throttle	04 MY Carryover	Deleted

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2005 MY Excursion Engine Change

- The early 2005 MY Excursions were equipped with the 2004.25 MY engines.
- Beginning January 2005 all Excursions will be equipped the the 2005 MY engine.
- The Excursion engine will include all of the updates that have previously been listed for the F-series engines.



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New DTC P2457

- P2457 Exhaust Gas Recirculation (EGR) cooler performance.
- The fault is detected when the IAT2 exceeds a calibrated temperature for more than 30 seconds, with an IAT temperature of less than 34°C (93.2°F).
- Possible causes: engine overheating, cooling system restriction, charge air cooler system restriction, or an EGR cooler restriction.
- Refer to the PCED for further information.



IAT1 SENSOR

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Removed MAF Sensor

- The Mass Air Flow (MAF) Sensor has been removed from F-Series vehicles with Federal calibrations beginning in November 2004.
- The Intake Air Temperature (IAT1) Sensor will be mounted in the same location as the previous IAT1/MAF combination sensor.

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Previous Turbocharger Bracket

- The previous style turbocharger bracket has been improved to make the engine less sensitive to moan/droan concerns.
- This bracket went in production on September 29, 2003 beginning with engine serial number 6155637 for Indianapolis built engines and engine serial number 0094580 for Huntsville built engines.
- This bracket was used on 2004.25 and early 2005 MY engines.

LESS STRUCTURAL SUPPORT



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Current Turbocharger Bracket

- The current production turbocharger bracket has been made more robust by adding material across the center of the bracket.
- The new design minimizes the moan/droan concerns.
- The current bracket went into production on January 5, 2005 beginning with engine serial number 6470111 for Indianapolis built engines and engine serial number 0189356 for Huntsville built engines.
- **NOTE: The current bracket is reverse compatible with 2004.25 and early 2005 MY engines.**

ADDED STRUCTURAL SUPPORT



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Optimized Exhaust Pressure Sensor

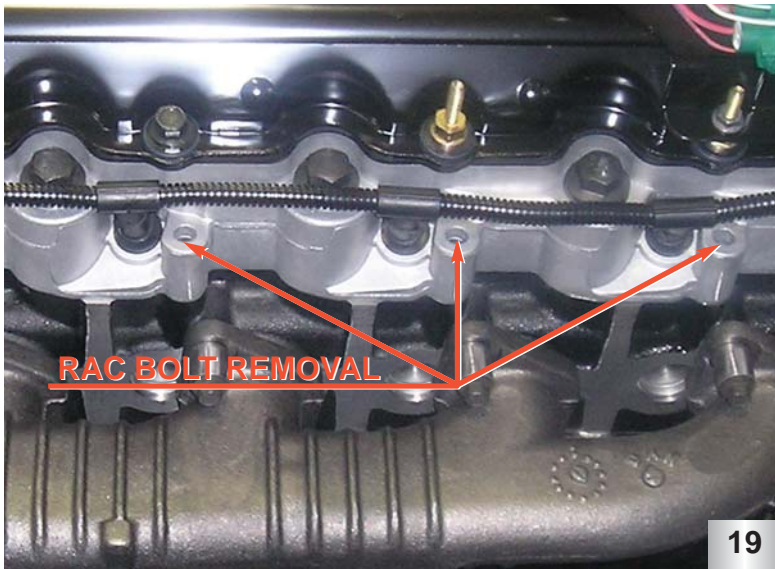
- A new Exhaust Pressure (EP) sensor went into production on January 14, 2005.
- The new sensor incorporates an improved ceramic sensing disc that is less susceptible to exhaust corrosion.
- The optimized sensor can be identified by the International part number 1850353C1 or 1850352C1 located near the top of the sensor body.
- **NOTE: The optimized EP sensor is available as a service part for 2003.25, 2004.25, and early 2005 MY engines which use different mounting threads.**

INTERNATIONAL PART NUMBER



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Rocker Arm Carrier (RAC) Bolts

- The cylinder head is now manufactured without the four outer rocker arm carrier (RAC) hold down bolt holes.
- The rocker arm carrier (RAC) still has the bolt holes in the casting with no bolts installed.
- The reason for the change is the clamp load provided by the cylinder head bolts is sufficient to for the rocker carrier.
- This change began with engine serial number 6537996 on April 5, 2005 on Indianapolis built engines.

F-Series Emissions Label

 <p>2006 6.0 DIT ENGINE FAMILY 6NVXH06.0AEC</p>	MODEL	ADV. BHP @ RPM	LB-FT TORQ. @ RPM
	A325	325 @ 3300	570 @ 2000
CURB IDLE, FUEL RATE @ ADVERTISED POWER, AND INJECTION TIMING ARE NON-ADJUSTABLE.			
EMISSION CONTROL SYSTEM: ECM, TC, DI, CAC, EGR, OC			
DISPLACEMENT: 6.0L			
<p>IMPORTANT ENGINE INFORMATION: THIS ENGINE HAS A PRIMARY INTENDED SERVICE APPLICATION AS A LIGHT HEAVY-DUTY DIESEL ENGINE & CONFORMS TO U.S. EPA LEV-CLEAN FUEL FLEET VEHICLE PROGRAM REGULATIONS, CALIFORNIA, CANADIAN, AND AUSTRALIAN ADR-30 REGULATIONS FOR THE 2006 MODEL YEAR AND IS CERTIFIED TO OPERATE ON DIESEL FUEL.</p>			

EMISSION CONTROL INFORMATION

ENGINE MANUFACTURED BY:
INTERNATIONAL TRUCK AND ENGINE CORPORATION

INTERNATIONAL
1858583C1

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2006 MY Engine

- The 2006 MY F-series engines began production May 6, 2005 with engine serial number 6561405 for Indianapolis built engines and May 3, 2005 with engine serial number 0222228 for Huntsville built engines.
- The 2006 MY E-series engine began production April 6, 2005 beginning with engine serial number 0213261.
- The MY change does not include any current hardware changes.